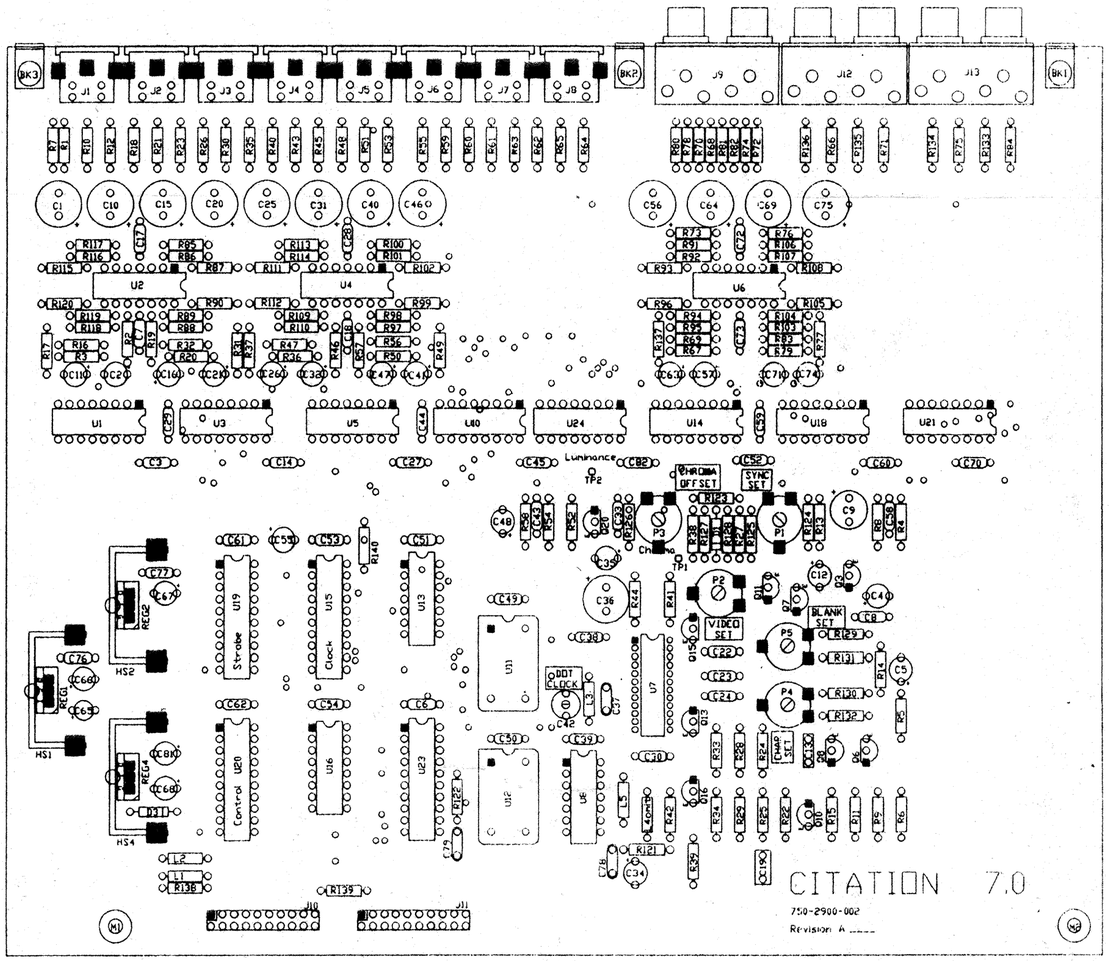
REVISIONS			
REV	DESCRIPTION OF CHANGE OR PREVIOUS STATE	DRAWN	DATE
A2	ORIGINAL	DC	04/18/95



RELEASED FOR MANUFACTURE
9/19/95

SIGNATURE		DATE
DRAWN	D.J.CLARK	04/18/95
DESIGN CHK	K. Miller	9-19-95
PROJ MGR	D. Clark	9-19-95

C70VBPA1.SKD

CITATION
26046 EDEN LANDING ROAD, HAYWARD, CA 94545

CITATION 7.0
VIDEO PCB PART PLACEMENT

DWG NUMBER

REV A2

SHEET 1 OF 1

LOW PASS

THX REF=875 MV @ LEFT & RIGHT

FRONT MODE SW

L-SUB

R-SUB

M-SUB

THX RE. EQ

SIDE MODE SW

BACK MODE SW

A/D AND D/A CONVERTERS

A/D PAGE 3, D/A PAGE 4

CF BASS CANCEL

AUTOBALANCE CONTROL CKT

CONTROL VOLTAGE GENERATOR

VCA CIRCUITS

PAGE 2

DETECTOR FILTER

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CITATION

Inovonics, California

Title

SCHEMATIC, CIT 7.0 MB 400-02006-03

Size	Document Number	REV
B	C7MBD001.SCH	02

Date: September 8, 1998 Sheet 1 of 11

THX REF=875 MV
@ LEFT & RIGHT

MAX REF LEVEL
6V P.P.

LOW PASS

FRONT MODE
SW

THX RE. EQ

L-SUB

R-SUB

M-SUB

LEFT HI CURRENT BUFFER

RIGHT HI CURRENT BUFFER

CF BASS CANCEL

SIDE MODE
SW

BACK MODE
SW

AUTOBALANCE CONTROL CKT

CONTROL VOLTAGE GENERATOR

VCA CIRCUITS
PAGE 2

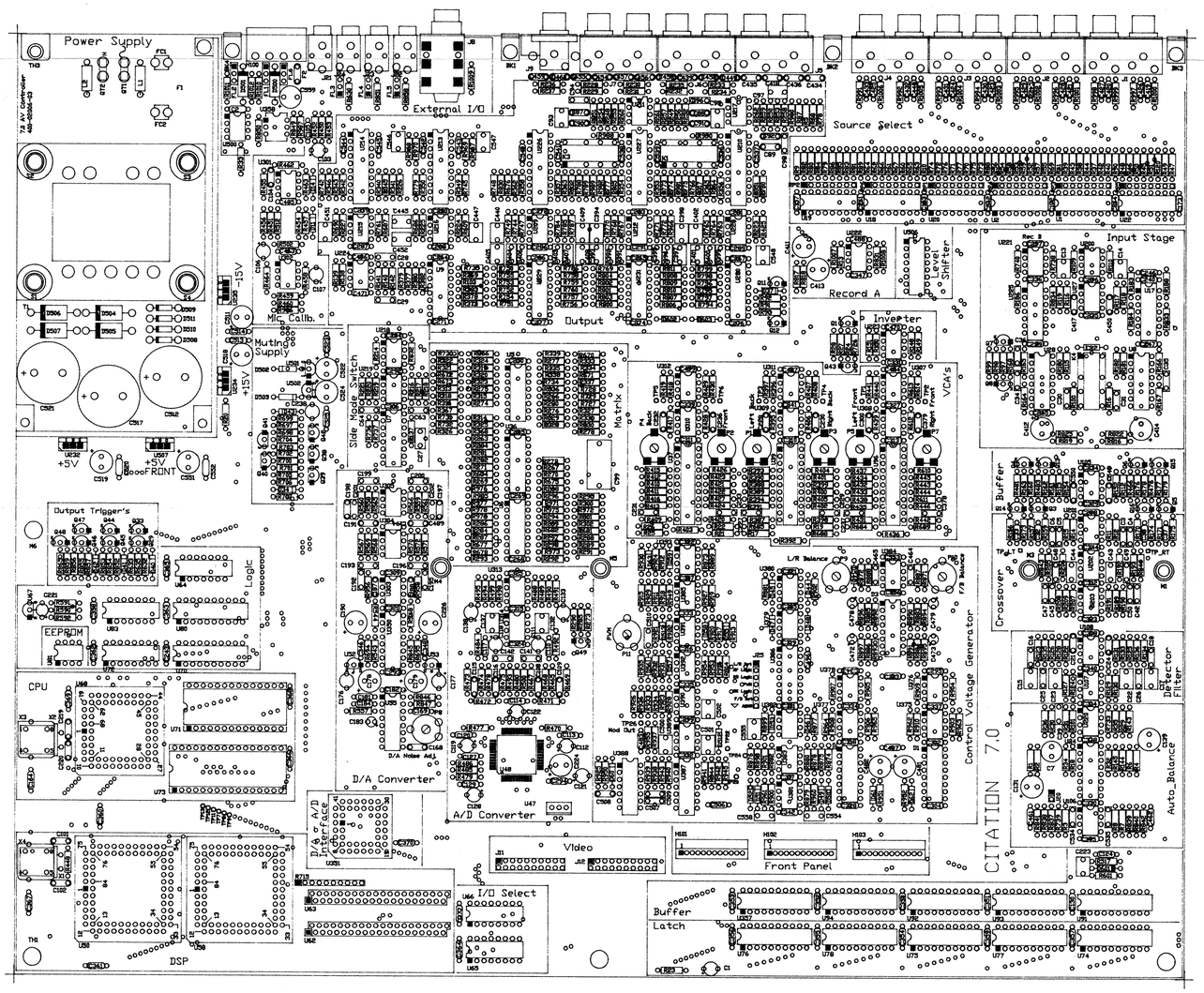
A/D AND D/A CONVERTERS
A/D PAGE 3, D/A PAGE 4

RELEASED FOR
MANUFACTURE
4/26/96

CITATION
Hayward, California

Title	SCHEMATIC, CET 7.0 HS 400-02008-03	
Size	Document Number	REV
E	07HS0001.SCH	DO
Date:	April 26, 1996 Sheet 1 of 11	

REVISIONS			
REV	DESCRIPTION OF CHANGE OR PREVIOUS STATE	DRAWN	DATE
C1	DIODE REVERSED	DJC	10/17/95
C2	SOFTWARE CHANGE	DJC	02/28/96
C3	CHANGE RESISTOR VALUE IN R670, AND R672	DJC	02/29/96
03	PCB CIRCUIT REVISION	DJC	04/09/96
04	PCB CIRCUIT REVISION ECO 0191	DJC	09/19/96



COPY

SIGNATURE		DATE
DRAWN	D.J.CLARK	09/19/96
DESIGN CHK		
PROJ MGR		

RELEASED FOR MANUFACTURE BY

C70MBPD2.DWG

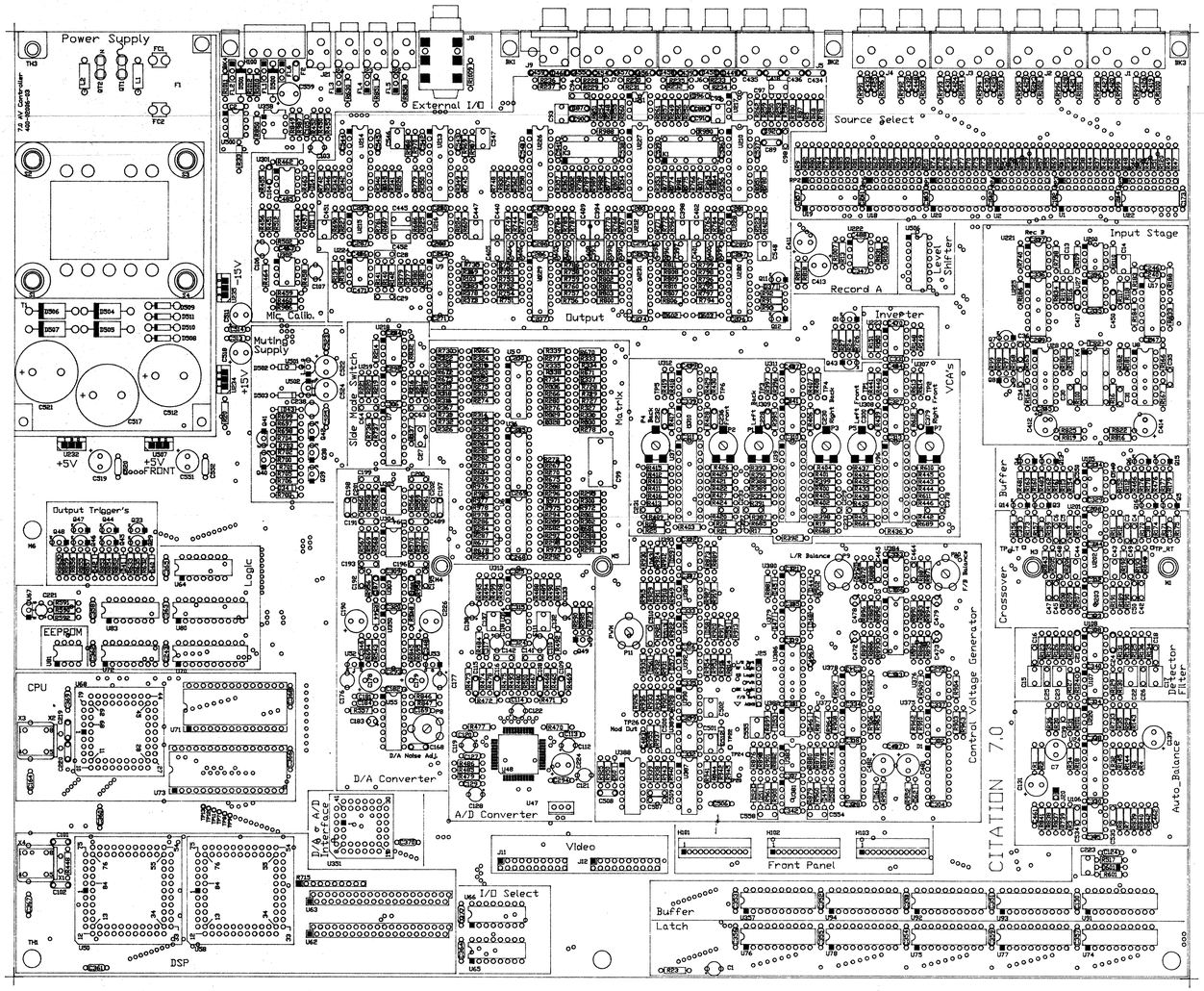
CITATION
26046 EDEN LANDING ROAD, HAYWARD, CA 94545

PART PLACEMENT
CIT 7.0 MAIN BD.

DWG NUMBER 400-02006 REV 04

SCALE: NOT TO SCALE SHEET 1 OF 1

REVISIONS			
REV	DESCRIPTION OF CHANGE OR PREVIOUS STATE	DRAWN	DATE
C1	DIODE REVERSED	DJC	10/17/95
C2	SOFTWARE CHANGE	DJC	02/28/96
C3	CHANGE RESISTOR VALUE IN R670, AND R672	DJC	02/29/96
03	PCB CIRCUIT REVISION	DJC	04/09/96



SIGNATURE		DATE
DRAWN	D.J.CLARK	04/09/96
DESIGN CHK		4/09/96
PROJ MGR	DClark	5-15-96

RELEASED FOR MANUFACTURE BY _____ 5/15/96

C70MBPD0.DWG

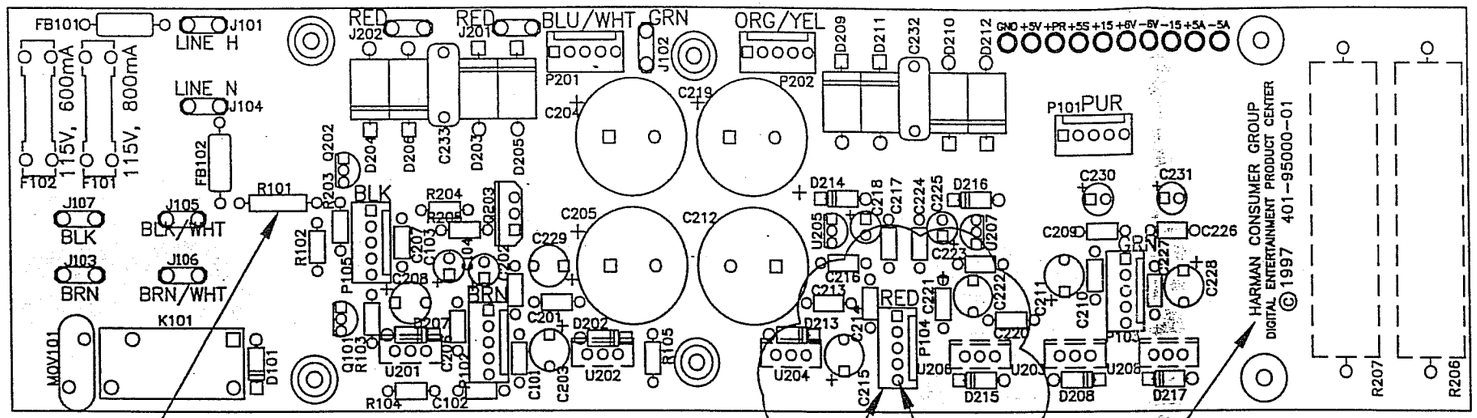
CITATION
26046 EDEN LANDING ROAD, HAYWARD, CA 94545

PART PLACEMENT
CIT 7.0 MAIN BD.

DWG NUMBER 400-02006 REV 03

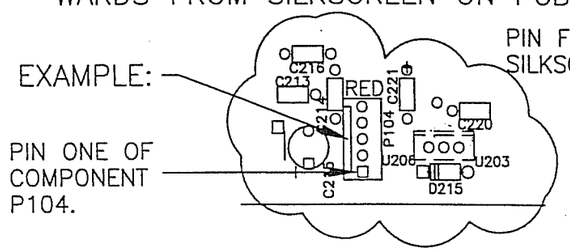
SCALE: NOT TO SCALE SHEET 1 OF 1

REVISIONS			
REV.	DESCRIPTION OF CHANGE OR PREVIOUS STATE	DRAWN	DATE
00	ORIGINAL	DJC	7/21/9
01	ADDED NOTE 7A	DJC	7/24/9
02	COMPONENT VALUE, AND NOTE 15 SHEET 2	DJC	12/17/9
03	CITATION 5.0 ONLY: ROTATION OF P104	DJC	06/04/9
04	CITATION 5.0 ONLY DISTANCE OF SPACING FOR R206/R207 CHANGED FROM 1/4" TO 1/2".	DJC	2/29/00



NOTE: FOR CITATION 5.0 ONLY

P104 IS TO BE INSTALLED BACK-WARDS FROM SILKSCREEN ON PCB.



INSTALL PIN 1 OF COMPONENT P104 IN PIN 5 LOCATION OF P104 ON THE PCB. AS SHOWN IN THE EXAMPLE.

NOTES:

UNLESS OTHERWISE SPECIFIED:

1. SQUARE PADS ON THRU HOLE PARTS (ie: CONNECTORS, DIPS, SIPS, LEDS,) DENOTE PIN 1.
2. ALL BOARDS REQUIRE A COMPLETE AND THOROUGH VISUAL INSPECTION.
3. ALL BOARDS MUST BE BARE BOARD TESTED.
4. (XX) CIRCLES REFER TO ITEM NUMBERS ON THE PARTS LIST.
5. [XX] SQUARES REFER TO THE NOTES.
6. ASSEMBLE AND SOLDER PER ANSI/IPC-A-610B.

PRE WAVE:

7. KEEP U201, U202, U204, U206, U203, U208, R207, R206, PLUS ALL MOUNTING HOLES FREE AND CLEAR OF SOLDER.

7A. OMIT 4.3M, 5%, 1/2W, RESISTOR, IN R101; IF BUILDING PCB'S FOR SIGNATURE 2.0 230V UNITS ONLY.
OMIT 4.3M, 5%, 1/2W, RESISTOR, IN R101; IF BUILDING PCB'S FOR CITATION 5.0 120V, AND 230V UNITS.

POST WAVE:

(CONTINUED ON SHEET 2)

COPY

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	SIGNATURE	DATE
DRAWN	DJ CLARK	7/21/97
DESIGN CHK		
PROJ. MGR		

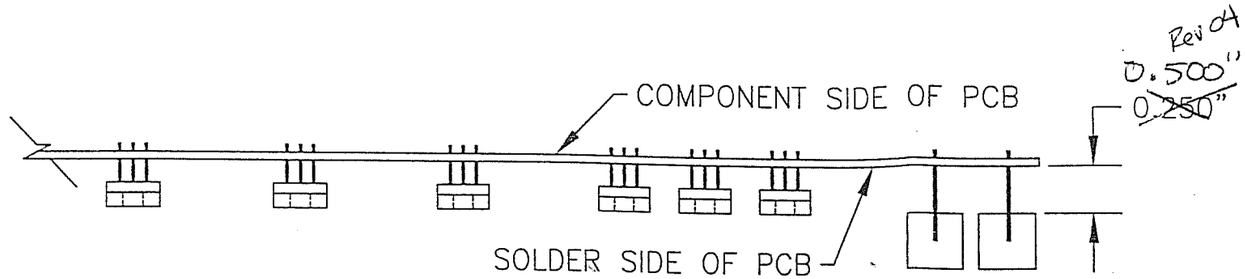
CSPWRA03.DWG

harman consumer group
digital entertainment product center
1308 Borregas Ave., Sunnyvale, CA 94089-1001

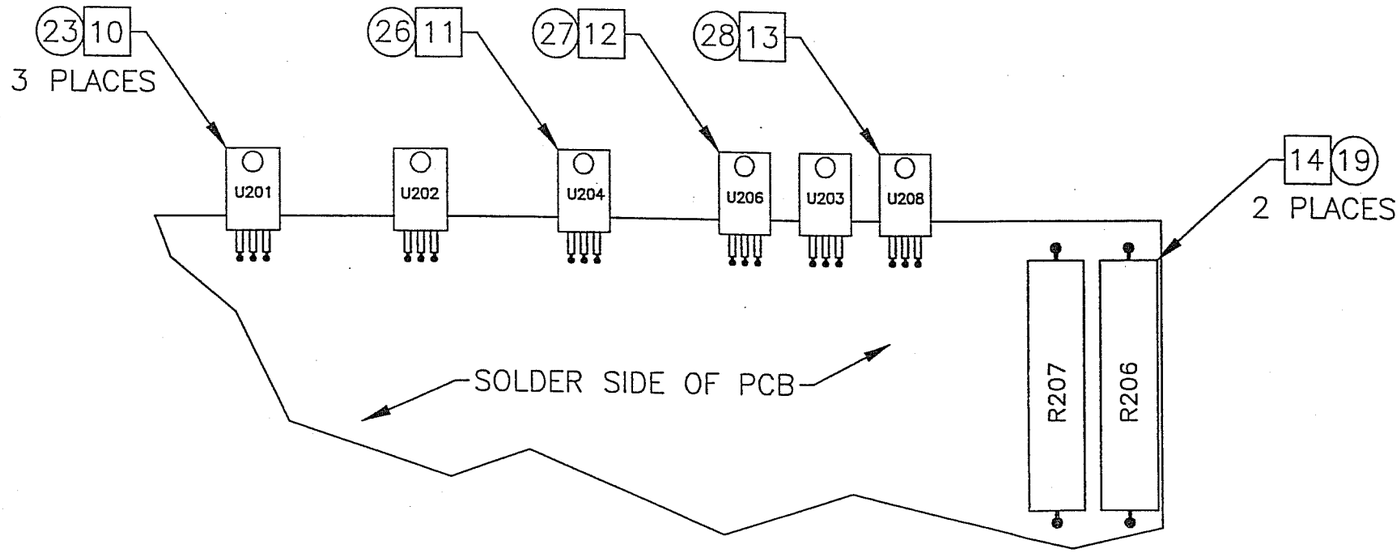
ASSY DRAWING, POWER SUPPLY BD.

DWG. NUMBER 041-95000 04 REV. X

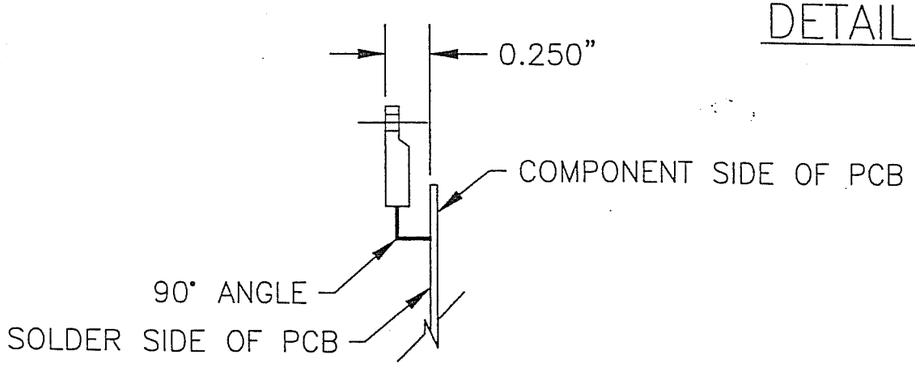
SCALE: NOT TO SCALE SHEET: 1 OF



DETAIL B



DETAIL C



DETAIL A

NOTES: (CONTINUED FROM SHEET 1)

POST WAVE:

9. AFTER WAVE SOLDER; ALL COMPONENTS ARE TO BE FLUSH, AND PERPENDICULAR TO PCB. (ie: RELAY, CONNECTORS, FUSE CLIPS, AND FAST-ON'S)

10. THREE, 7805 VOLTAGE REGULATORS, ARE TO BE BENT AT A 90° ANGLE. (SEE DETAIL A). INSTALL 7805 VOLTAGE REGULATORS IN U201, U202, U203, ON SOLDER SIDE OF PCB (SEE DETAIL C). BE SURE TO KEEP BACK SIDE OF REGULATORS, PARALLEL, AND A HEIGHT OF 0.250" FROM SOLDER SIDE OF PCB, AS SHOWN IN DETAIL A.

11. ONE, 7815 VOLTAGE REGULATOR, IS TO BE BENT AT A 90° ANGLE. (SEE DETAIL A). INSTALL 7815 VOLTAGE REGULATOR IN U204, ON SOLDER SIDE OF PCB (SEE DETAIL C). BE SURE TO KEEP BACK SIDE OF REGULATOR, PARALLEL, AND A HEIGHT OF 0.250" FROM THE SOLDER SIDE OF PCB, AS SHOWN IN DETAIL A.

12. ONE, 7915 VOLTAGE REGULATOR, IS TO BE BENT AT A 90° ANGLE. (SEE DETAIL A). INSTALL 7915 VOLTAGE REGULATOR IN U206, ON SOLDER SIDE OF PCB (SEE DETAIL C). BE SURE TO KEEP BACK SIDE OF REGULATOR, PARALLEL, AND A HEIGHT OF 0.250" FROM THE SOLDER SIDE OF PCB, AS SHOWN IN DETAIL A.

13. ONE, 7905 VOLTAGE REGULATOR, IS TO BE BENT AT A 90° ANGLE. (SEE DETAIL A). INSTALL 7905 VOLTAGE REGULATOR IN U208 ON SOLDER SIDE OF PCB (SEE DETAIL C). BE SURE TO KEEP BACK SIDE OF REGULATOR, PARALLEL, AND A HEIGHT OF 0.250" FROM THE SOLDER SIDE OF PCB, AS SHOWN IN DETAIL A.

14. INSTALL TWO, 33 OHM, 5%, WIREWOUND, 10W, RESISTORS IN R206, AND R207 ON SOLDER SIDE OF PCB. BE SURE TO KEEP BODY OF RESISTORS ~~0.250"~~ 0.500" (Rev 04) OFF PCB. (SEE DETAILS B AND C)

15. THIS ASSEMBLY DRAWING TO BE USED IN COMPLIANCE WITH PART LIST 061-95000-02, AND BARE BOARD 401-95000-01 ONLY.

COPY

SIGNATURE		DATE
DRAWN	DJ CLARK	7/21/97
DESIGN CHK		
PROJ. MGR		

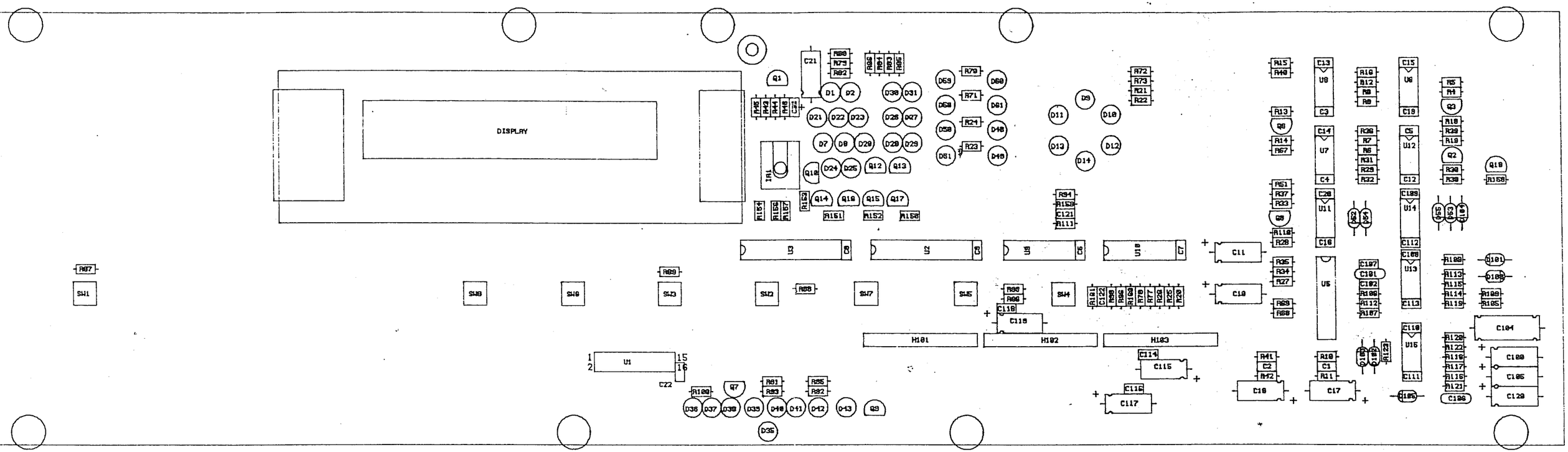
CSPWA203.DWG

harman consumer group
digital entertainment product center
1308 Borregas Ave., Sunnyvale, CA 94089-1001

ASSY DRAWING,
POWER SUPPLY BD.

DWG. NUMBER 041-95000 04 REV. ~~05~~

SCALE: NOT TO SCALE SHEET: 2 OF



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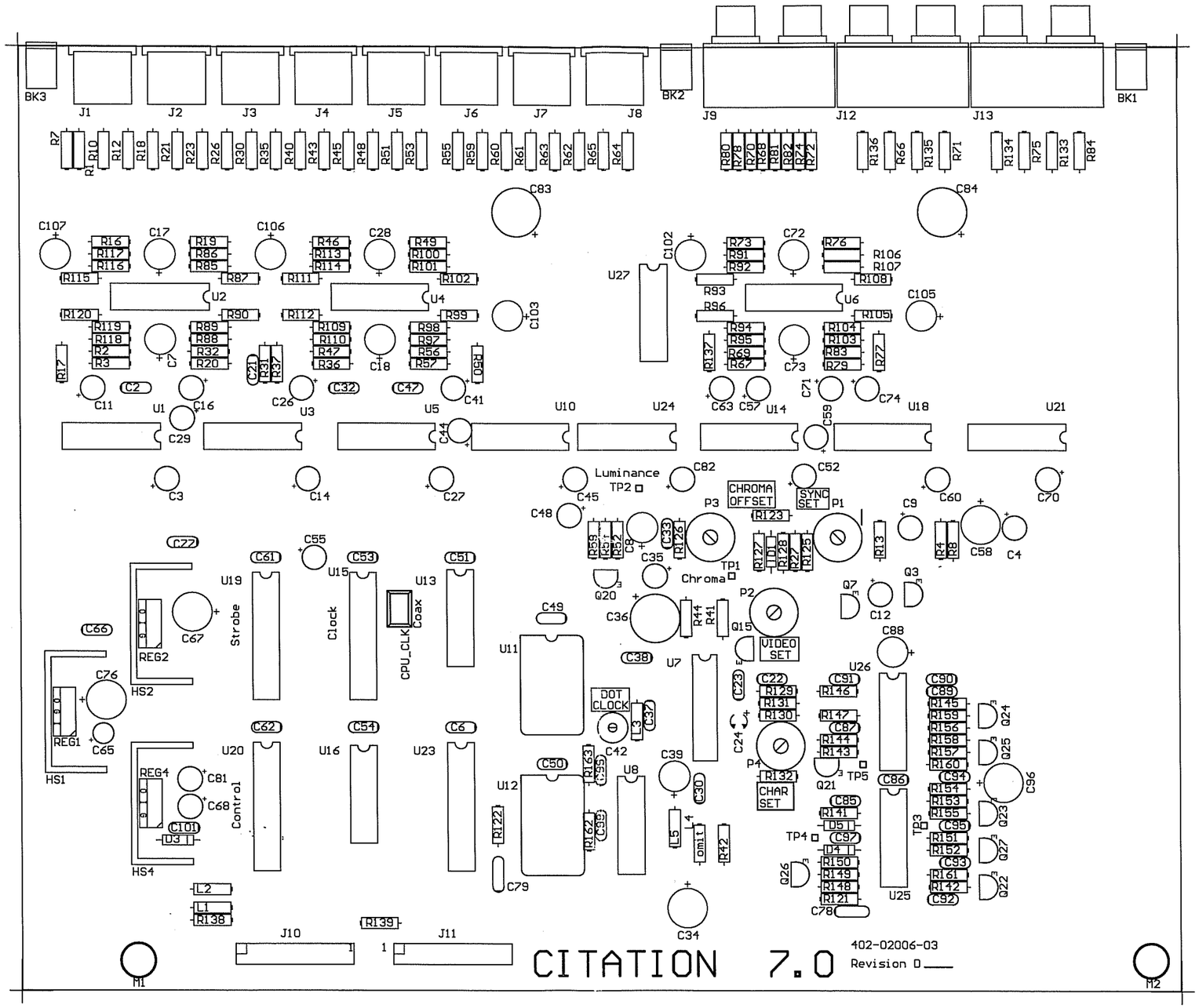
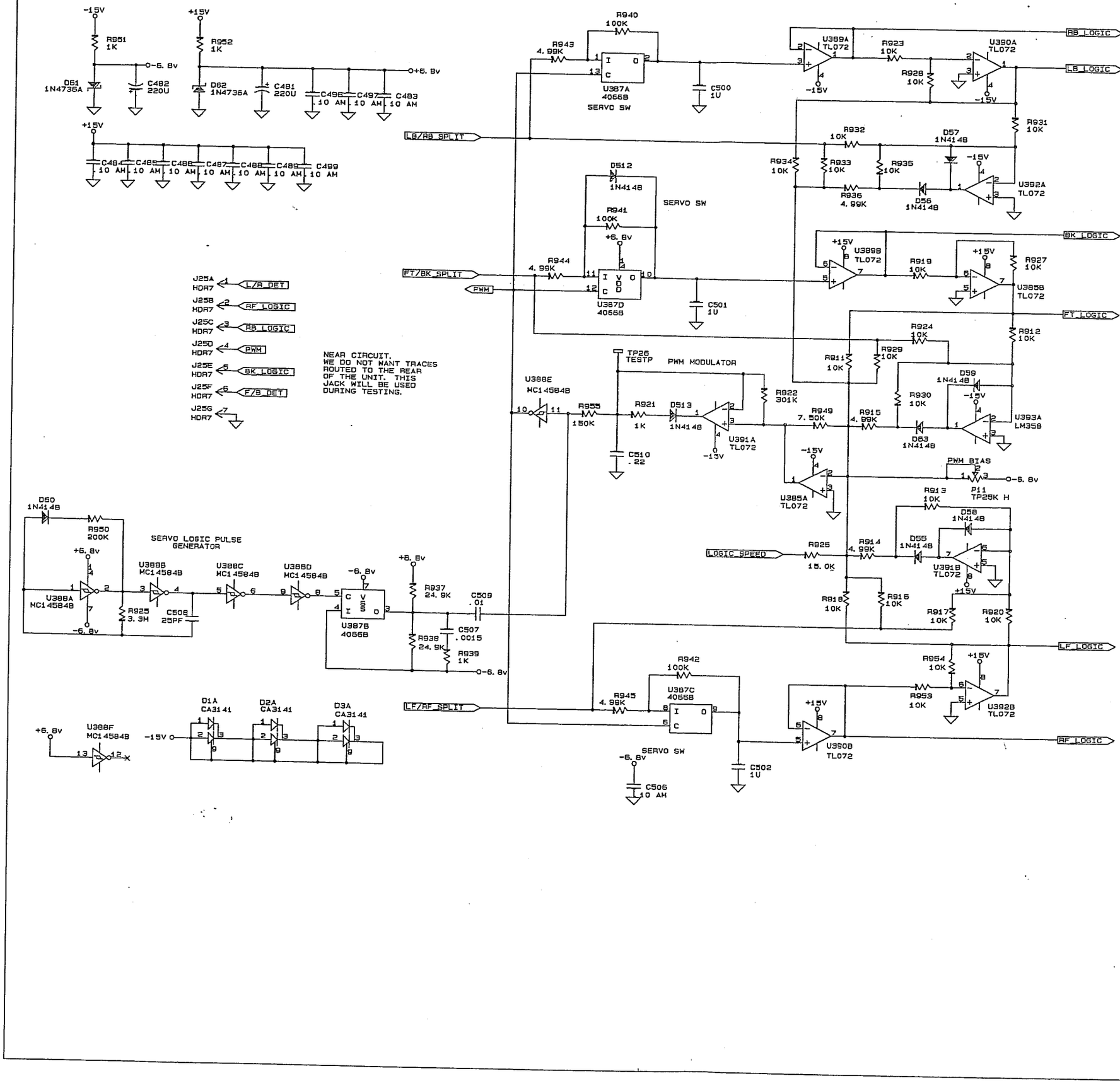
Oliver 11/7/95

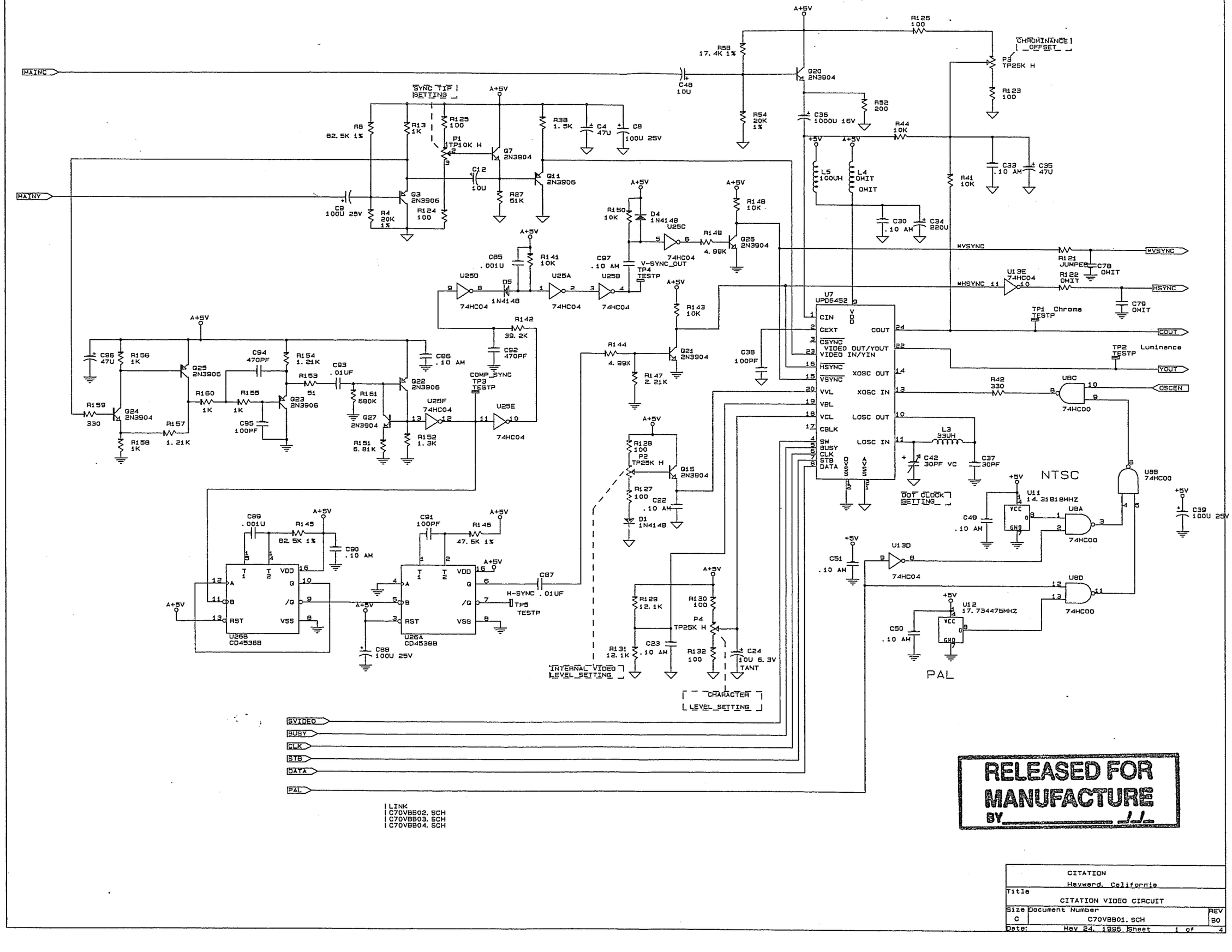
CITATION 26046 EDEN LANDING RD. HAYWARD, CA. 94545 (510) 293-0183	LAYER: SILKSCREEN
CITATION 7.0 FRONT PANEL PART PLACEMENT	
750-2900-000 REV D0	
DATE: MAY 31, 1995	
DRAWN BY: LAURIE MILLE	



RELEASED FOR MANUFACTURE
BY 8/15/97



CITATION		
Hayward, California		
Title: CITATION 7.0 CVG SERVO LOGIC		
Size: C	Document Number: C7MBC311.SCH	REV: C3
Date: April 26, 1995	Sheet 11 of 11	


MAINC
MAINY
SYNC TIP SETTING
A+5V
R8 82.5K 1%
R13 1K
R125 100
P1 TP10K H
R38 1.5K
C4 47U
C8 100U 25V
Q7 2N3904
Q11 2N3906
Q3 2N3906
C12 10U
R27 51K
C9 100U 25V
R4 20K 1%
R124 100
C48 10U
R58 17.4K 1%
R54 20K 1%
Q20 2N3904
R126 100
CHROMINANCE OFFSET
P3 TP25K H
R123 100
R52 200
C36 1000U 16V
R44 10K
L5 100UH
L4 OHIT
OHIT
C33 .10 AM
C35 47U
R41 10K
C30 .10 AM
C34 220U
R150 10K
D4 1N4148
U25C
74HC04
R149 4.99K
Q26 2N3904
R148 10K
C85 .001U
R141 10K
C97 .10 AM
TP4 TESTP
V-SYNC_OUT
U25D
U25A
U25B
D5 1N4148
74HC04
R142 39.2K
C92 470PF
C86 .10 AM
COMP_SYNC
TP3 TESTP
R143 10K
R144 4.99K
Q21 2N3904
R147 2.21K
C38 100PF
MVSYNC
R121 JUMPER
C78 OHIT
U13E 74HC04
MHSYNC
R122 OHIT
HSYNC
C79 OHIT
TP1 Chrome TESTP
CDOUT
TP2 Luminance TESTP
YOUT
OSCEN
R42 330
U8C 74HC00
U7 UPD6452
CIN
CEXT
CSYNC
VIDEO OUT/YOUT
VIDEO IN/YIN
HSYNC
VSYNC
VVL
VBL
VCL
CBLK
SW
BUSY
CLK
STB
DATA
VDD
VSS
CDOUT
XOSC OUT
XOSC IN
LOSC OUT
LOSC IN
L3 33UH
C42 30PF VC
C37 30PF
DOT CLOCK SETTING
NTSC
U11 14.31818MHZ
U8B 74HC00
U8A 74HC00
C49 .10 AM
C39 100U 25V
U13D 74HC04
C51 .10 AM
U8D 74HC00
U12 17.734475MHZ
C50 .10 AM
PAL
C96 47U
R156 1K
Q25 2N3906
C94 470PF
R154 1.21K
R153 51
C93 .01UF
R160 1K
R155 1K
Q23 2N3906
R161 680K
Q27 2N3904
C95 100PF
R159 330
Q24 2N3904
R157 1.21K
R158 1K
R151 6.81K
U25F 74HC04
U25E 74HC04
R152 1.3K
Q22 2N3906
C86 .10 AM
R128 100
P2 TP25K H
Q15 2N3904
R127 100
C22 .10 AM
D1 1N4148
C89 .001U
R145 82.5K 1%
C90 .10 AM
U26B CD4538B
C91 100PF
R146 47.5K 1%
C87 H-SYNC .01UF
TP5 TESTP
U26A CD4538B
C88 100U 25V
R129 12.1K
R130 100
P4 TP25K H
R131 12.1K
C23 .10 AM
R132 100
C24 10U 6.3V TANT
INTERNAL VIDEO LEVEL_SETTING
CHARACTER LEVEL_SETTING
SVIDEO
BUSY
CLK
STB
DATA
PAL
LINK
C70VBB02.SCH
C70VBB03.SCH
C70VBB04.SCH
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BY
COPY
CITATION
Hayward, California
Title
CITATION VIDEO CIRCUIT
Size C
Document Number C70VBB01.SCH
REV B0
Date: May 24, 1996 Sheet 1 of 4

STROBE

U19 — GAL16V8 STBV1.0
WR#, A3, A2, A1, A0, VCEN#, CNT2 → I1–I8
CLK, OE
O1 DIV0, O2 DIV1, O3 CNT0, O4 CNT1, O5 X, O6 X, O7 LDSAN, O8
STB
CLK

CONTROL

U20 — GAL16V8 CNTLV1.0
RD#, WR#, A3, A2, A1, A0, VCEN#, BUSY → I1–I8
CLK, OE
O1 M20L, O2 SVIDEO, O3 PAL, O4 DSCEN, O5, O6, O7, O8
SHCLKN

CLOCK

U15 — GAL16V8 CLKV1.0
I1–I8
CLK, OE
O1, O2, O3, O4, O5, O6, O7 X, O8 X
+5V
R140 1K
Z100MZ

U11 — HDR10X2L3
1 DATA7, 2 DATA6, 3 DATA5, 4 DATA4, 5 DATA3, 6 DATA2, 7 DATA1, 8 DATA0, 9 VCEN#, 10 WR#, 11, 12 A0, 13 A1, 14 A2, 15 A3, 16 Z180CLK, 17, 18 #VSYNC, 19 HSYNC, 20 X

U23 — 74HC574
DATA0–DATA7 → D0–D7
CLK, OE
G0–G7 → DD0–DD7
U13F 74HC04

U16 — 74HC166
DA–DH
CKINH, CLR, SERIN, CLK, S/I
GH → DATA
SHCLKN
C54 .10 AM → +5V

J10 — HDR10X2L3
1 ARECO, 2 AREC1, 3 AREC2, 4 BRECO, 5 BREC1, 6 BREC2, 7 SRCSEL0, 8 SRCSEL1, 9 SRCSEL2, 10 #SVID/COMP
VCC, VDD, +5V
C55 10U
R138 10
R138 100
VSS
L1 100UH, L2 100UH
+15V, -15V
C65 10U, C68 10U, C81 10U
D3 1N5232B
REG4 7905
REG1 7805, REG2 7905
C75 10U, C67 10U
C66 .10 AM, C77 .10 AM
+5V, -5V
C18 100U 25V
A+5V
C58 100U 25V
C62 .10 AM, C53 .10 AM, C61 .10 AM
-5V, VEE

COMPOSITE MAIN OUT 1

COUT
C21 10U
R32 3.3M
R31 46.4K 1%
R88 1K, R89 1K
U2D EL2411C
R80 825
C20 1000U 16V
R23 75
R26 46.4K 1%
J2 MINI DIN 4 — MAIN S-VID OUT 1

SVID1_YOUT
C16 10U
C17 100U 25V
R20 3.3M
R19 46.4K 1%
R85 1K, R86 1K
U2A EL2411C
R87 825
C15 1000U 16V
R18 75
R21 46.4K 1%

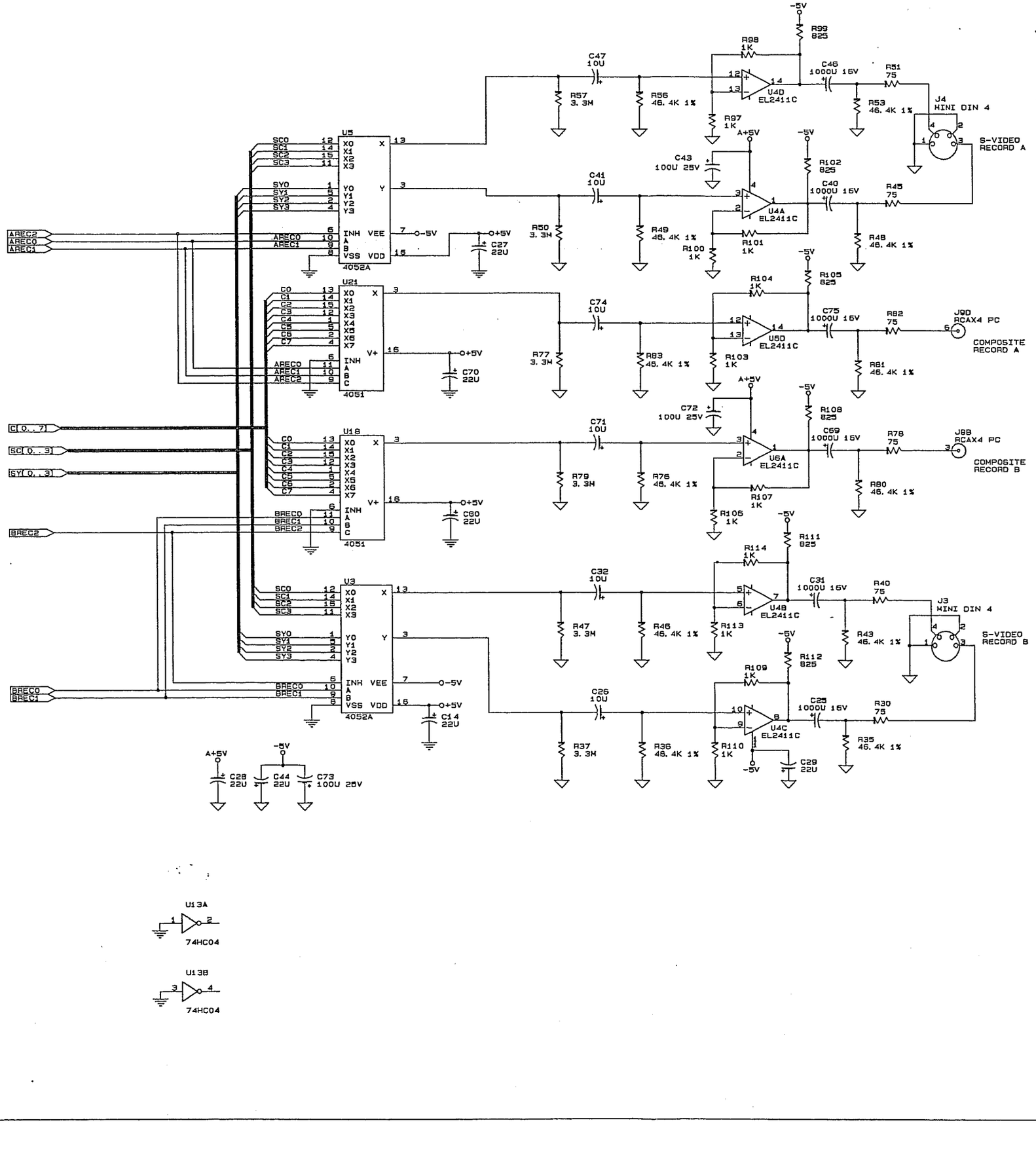
COMP1_YOUT
C63 10U
R137 3.3M
R73 46.4K 1%
R91 1K, R92 1K
U6B EL2411C
R93 825
C54 1000U 16V
R72 75
R74 46.4K 1%
J9C RCAX4 PC — COMPOSITE MAIN OUT 1

COMPOSITE MAIN OUT 2

M2COMP
C57 10U
R67 3.3M
R59 46.4K 1%
R95 1K
U6C EL2411C
R94 1K
R86 825
C56 1000U 16V
R68 75
R70 46.4K 1%
C59 22U
J9A RCAX4 PC — COMPOSITE MAIN OUT 2

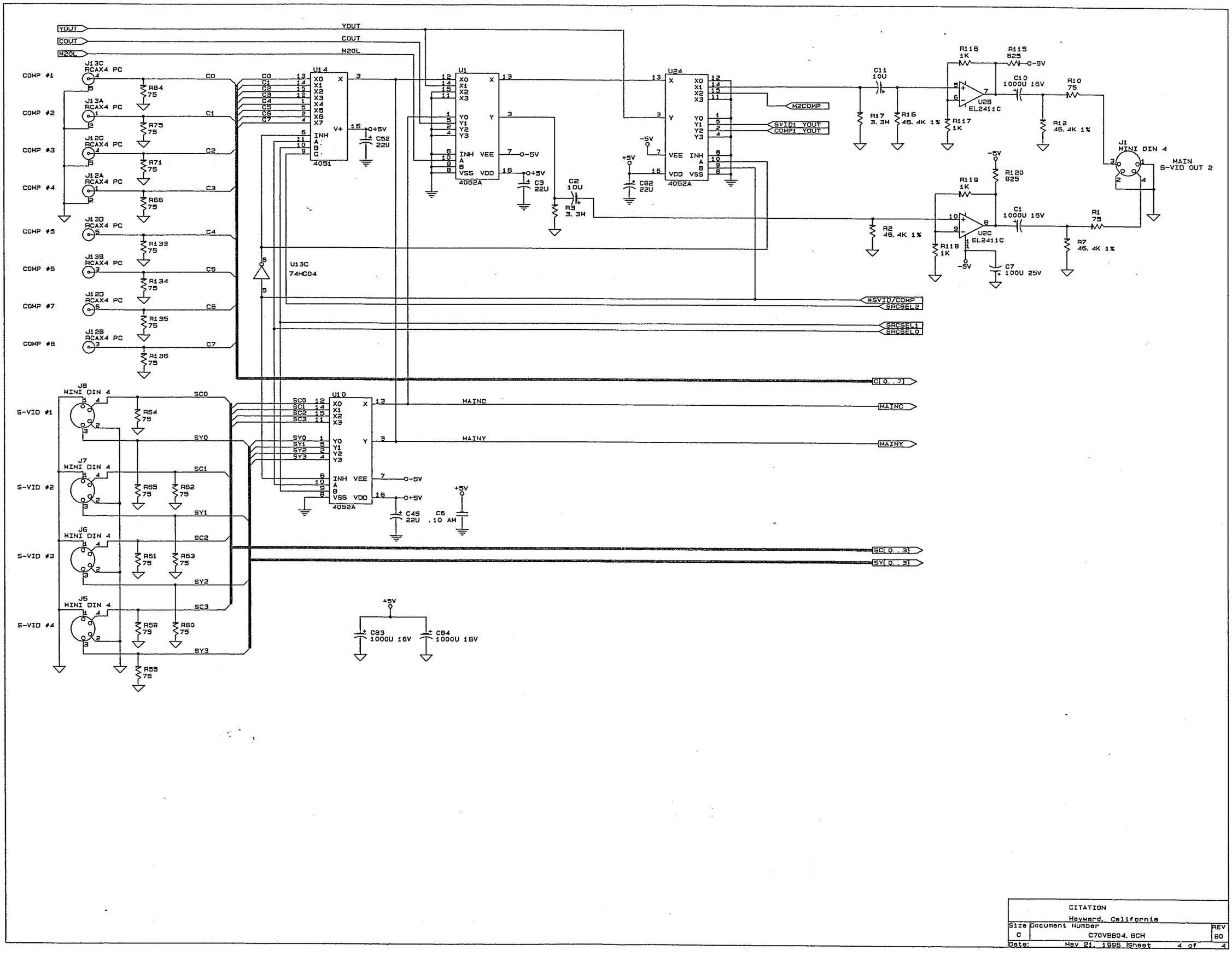
COPY

CITATION
Hayward, California
Size C | Document Number C70V8802.SCH | REV B0
Date: May 21, 1995 | Sheet 2 of 4



CITATION		
Hayward, California		
Size: C	Document Number: C70VB803	REV: B0
Date: May 19, 1995	Sheet 3 of 4	

COPY



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Hayward, California		
Size: C	Document Number: C70VB804.SCH	REV: B0
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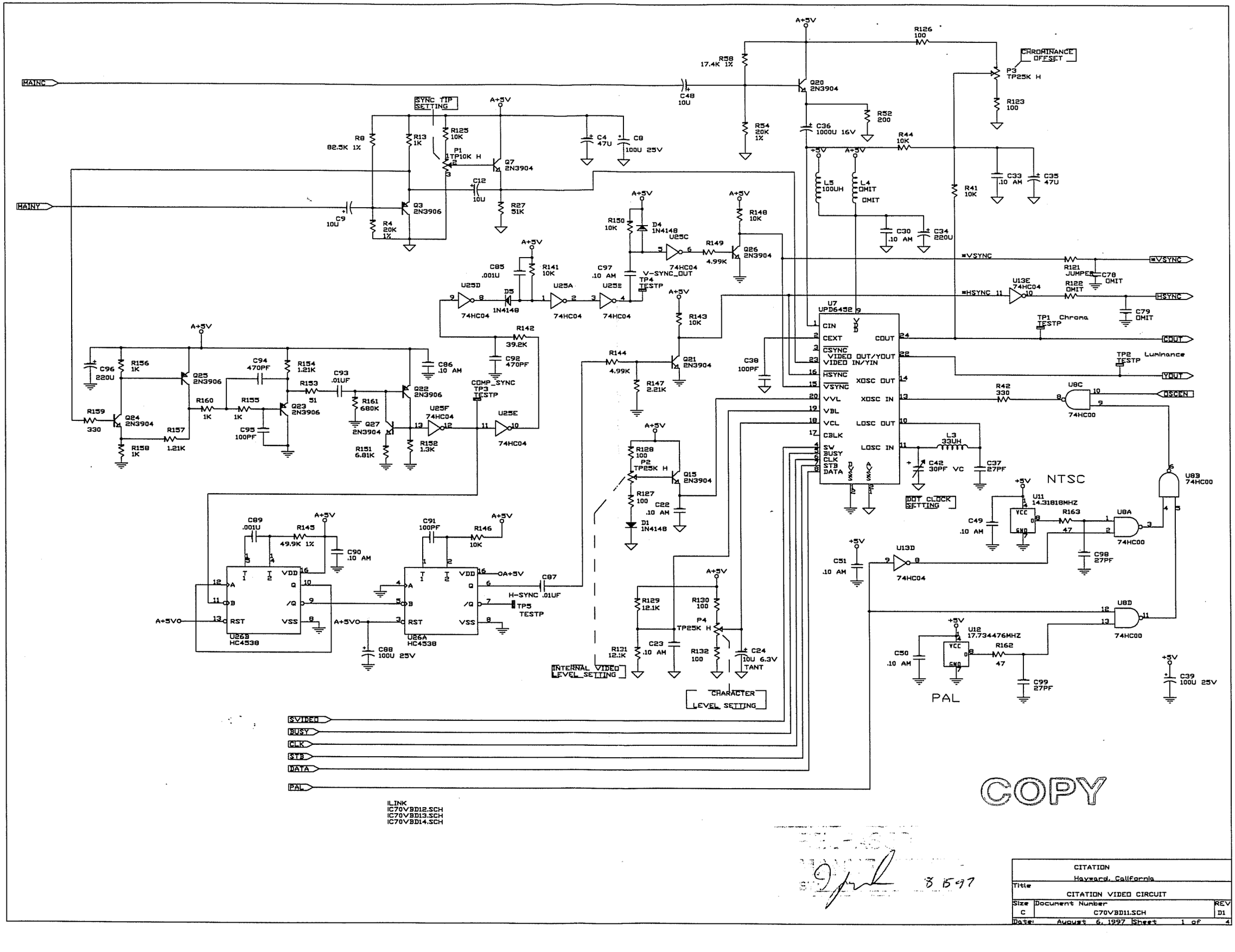
MAINC
MAINY
SYNC TIP SETTING
A+5V
R8 82.5K 1%
R13 1K
R125 10K
P1 TP10K H
Q7 2N3904
C4 47U
C8 100U 25V
C12 10U
R27 51K
C9 10U
R4 20K 1%
Q3 2N3906
C48 10U
R58 17.4K 1%
Q20 2N3904
R126 100
CHROMINANCE OFFSET
P3 TP25K H
R123 100
R52 200
C36 1000U 16V
R54 20K 1%
R44 10K
L5 100UH
L4 OMIT
OMIT
C33 .10 AM
C35 47U
R41 10K
C30 .10 AM
C34 220U
R150 10K
D4 1N4148
U25C
74HC04
R149 4.99K
Q26 2N3904
R148 10K
C85 .001U
R141 10K
U25D
D5 1N4148
U25A
U25B
C97 .10 AM
V-SYNC_OUT
TP4 TESTP
74HC04
74HC04
74HC04
R143 10K
R142 39.2K
C92 470PF
COMP_SYNC
TP3 TESTP
U25E
74HC04
R144 4.99K
Q21 2N3904
R147 2.21K
C38 100PF
U7 UPD6452
CIN
CEXT
CSYNC
VIDEO OUT/YOUT
VIDEO IN/YIN
HSYNC
VSYNC
VVL
VBL
VCL
CBLK
SW
BUSY
CLK
STB
DATA
COUT
XOSC OUT
XOSC IN
LOSC OUT
LOSC IN
=VSYNC
R121 JUMPER
C78 OMIT
=HSYNC
U13E 74HC04
R122 OMIT
HSYNC
C79 OMIT
TP1 Chroma TESTP
COUT
TP2 TESTP Luminance
YOUT
R42 330
U8C
74HC00
OSCEN
L3 33UH
C42 30PF VC
C37 27PF
DOT CLOCK SETTING
NTSC
U11 14.31818MHZ
U8B 74HC00
C49 .10 AM
R163 47
U8A
74HC00
C98 27PF
U13D
74HC04
C51 .10 AM
U8D
74HC00
PAL
U12 17.734476MHZ
R162 47
C50 .10 AM
C99 27PF
C39 100U 25V
R156 1K
Q25 2N3906
C96 220U
R159 330
Q24 2N3904
R157 1.21K
R158 1K
C94 470PF
R154 1.21K
R160 1K
R155 1K
Q23 2N3906
C95 100PF
R153 51
C93 .01UF
R161 680K
Q27 2N3904
R151 6.81K
C86 .10 AM
Q22 2N3906
U25F 74HC04
R152 1.3K
R128 100
P2 TP25K H
Q15 2N3904
R127 100
C22 .10 AM
D1 1N4148
C89 .001U
R145 49.9K 1%
C90 .10 AM
U26B HC4538
C91 100PF
R146 10K
U26A HC4538
C87 .01UF
H-SYNC
TP5 TESTP
C88 100U 25V
R129 12.1K
R130 100
P4 TP25K H
C23 .10 AM
R131 12.1K
R132 100
C24 10U 6.3V TANT
INTERNAL VIDEO LEVEL SETTING
CHARACTER LEVEL SETTING
SVIDEO
BUSY
CLK
STB
DATA
PAL
ILINK
IC70VBD12.SCH
IC70VBD13.SCH
IC70VBD14.SCH
COPY
CITATION
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Title
CITATION VIDEO CIRCUIT
Size C
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Sheet 1 of 4

STROBE

U19 GAL16V8 STBV1.0

CONTROL

U20 GAL16V8 CNTLV1.0

CLOCK

U15 GAL16V8 CLKV1.0

U23 74HC574

U13F 74HC04

U16 74HC166

J11 HDR10X2L3

J10 HDR10X2L3

U2D EL2411C

U2A EL2411C

U6B EL2411C

U6C EL2411C

J2 MINI DIN 4 MAIN S-VID OUT 1

J9C RCAX4 PC COMPOSITE MAIN OUT 1

J9A RCAX4 PC COMPOSITE MAIN OUT 2

REG1 7805

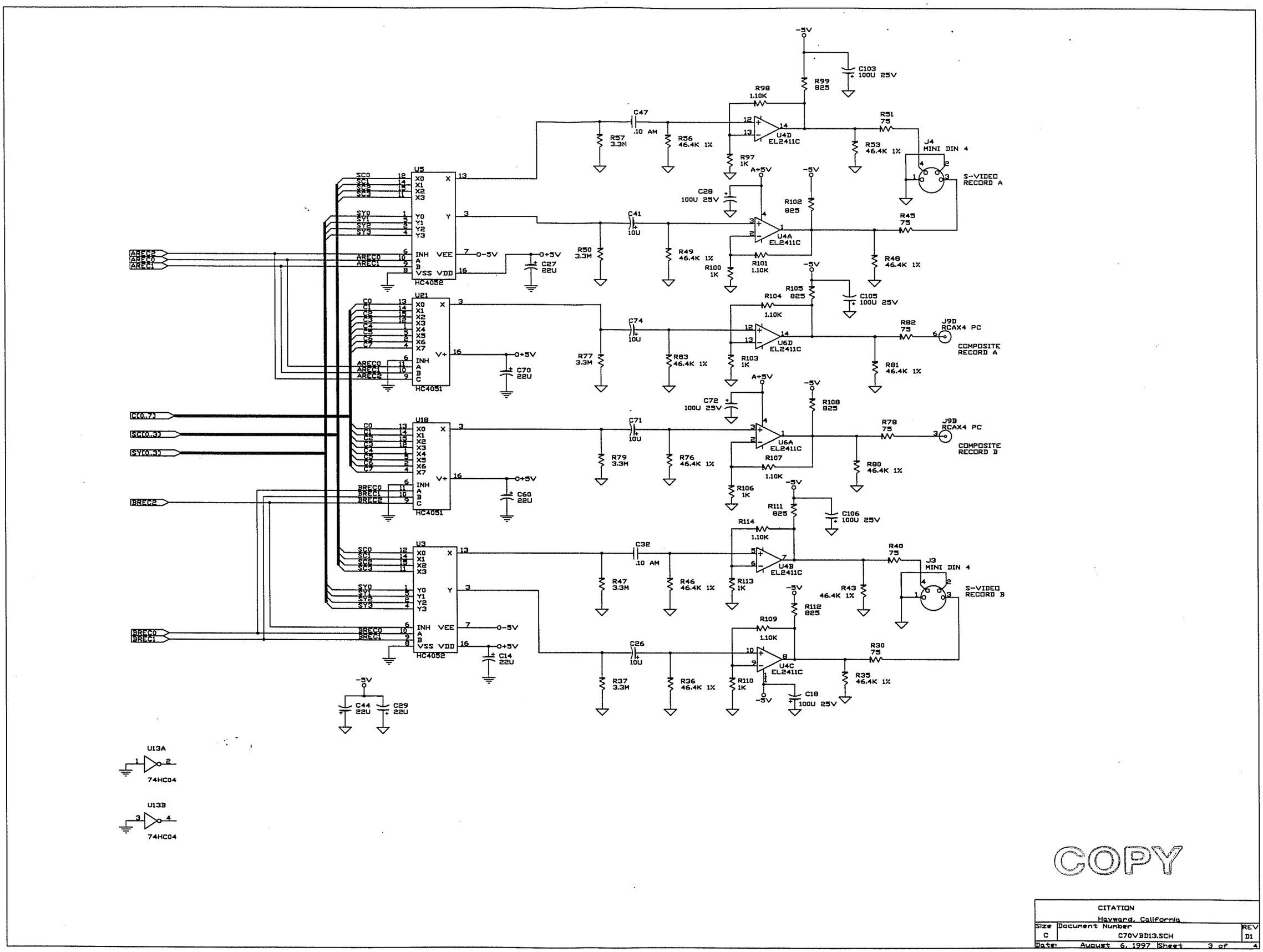
REG2 7905

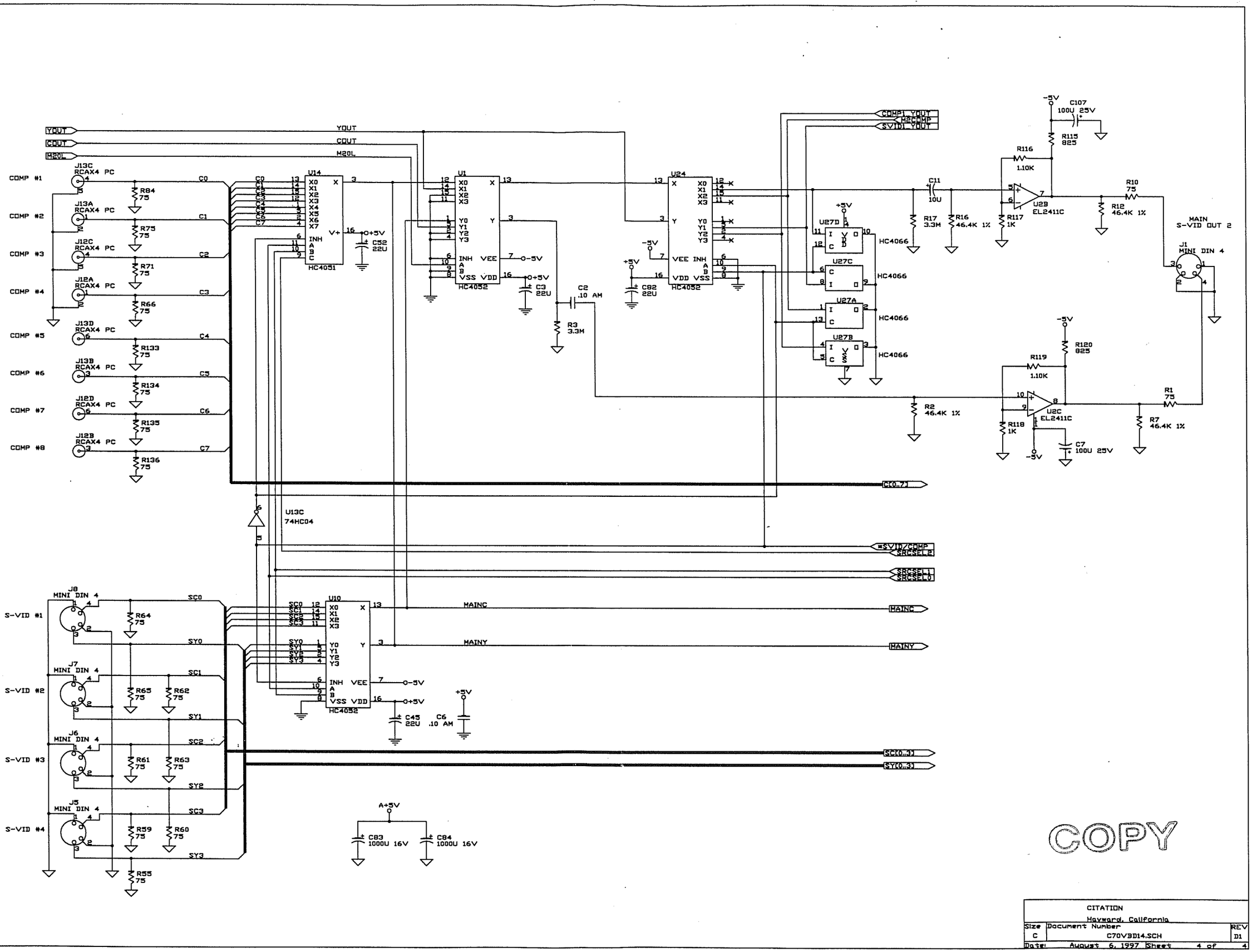
REG3 7905

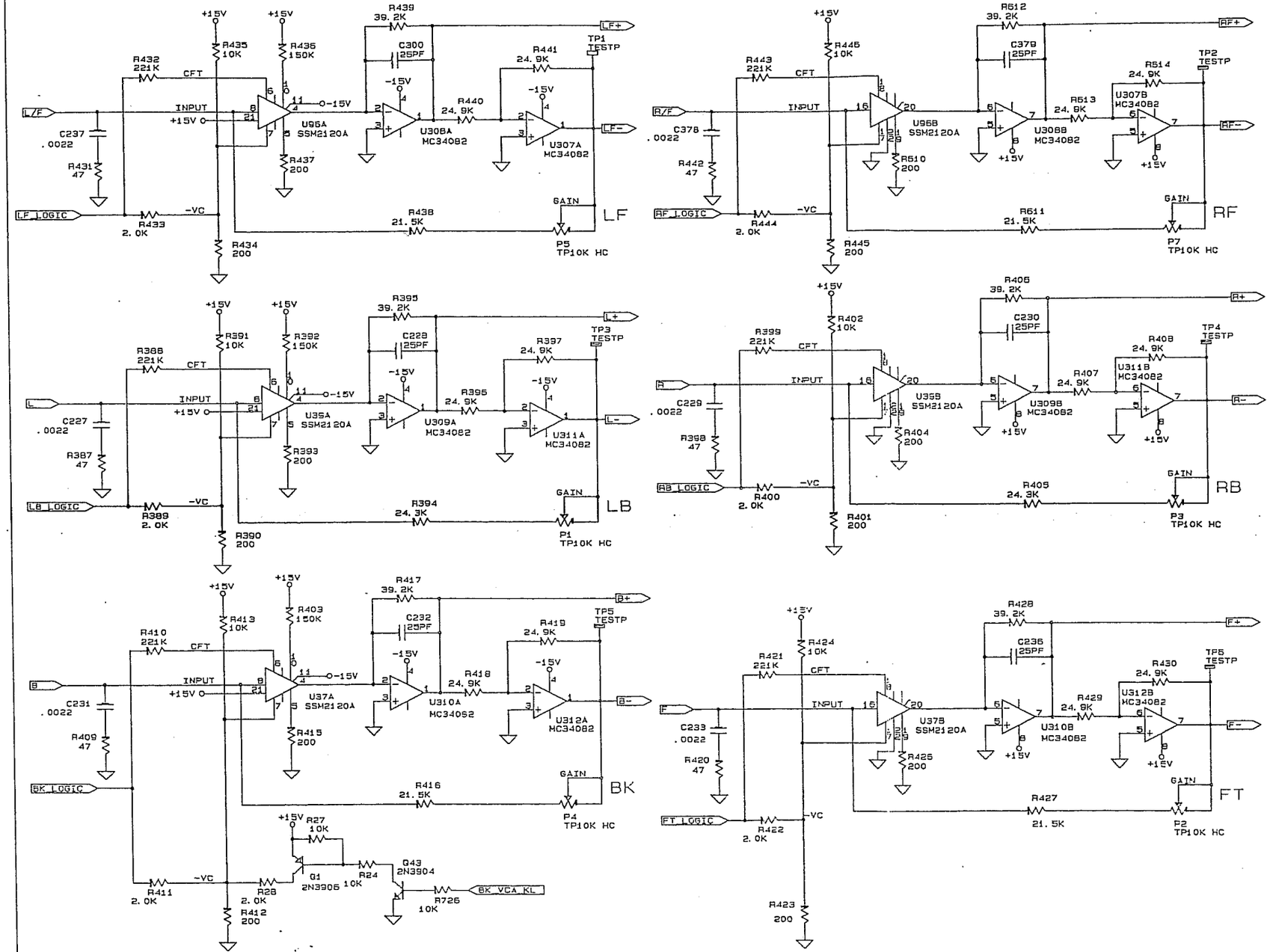
REG4 7905

COPY

CITATION		
Hayward, California		
Size C	Document Number C70VBD12.SCH	REV D1
Date: August 6, 1997	Sheet 2 of 4	


C[0..7]
SC[0..3]
SY[0..3]
ARECO
ARECI
ARECS
BRECO
BRECI
BRECS
U5
U21
U18
U3
HC4052
HC4051
INH
VEE
VSS
VDD
-5V
0+5V
A+5V
U4D EL2411C
U4A EL2411C
U6D EL2411C
U6A EL2411C
U4B EL2411C
U4C EL2411C
C103 100U 25V
C105 100U 25V
C106 100U 25V
C18 100U 25V
C28 100U 25V
C72 100U 25V
C27 22U
C70 22U
C60 22U
C14 22U
C44 22U
C29 22U
C47 .10 AM
C41 10U
C74 10U
C71 10U
C32 .10 AM
C26 10U
R98 1.10K
R99 825
R51 75
R53 46.4K 1%
R57 3.3M
R56 46.4K 1%
R97 1K
R102 825
R45 75
R50 3.3M
R49 46.4K 1%
R100 1K
R101 1.10K
R48 46.4K 1%
R104 825
R105 825
R82 75
R77 3.3M
R83 46.4K 1%
R103 1K
R81 46.4K 1%
R108 825
R78 75
R79 3.3M
R76 46.4K 1%
R107 1.10K
R80 46.4K 1%
R106 1K
R111 825
R114 1.10K
R40 75
R47 3.3M
R46 46.4K 1%
R113 1K
R43 46.4K 1%
R112 825
R109 1.10K
R30 75
R37 3.3M
R36 46.4K 1%
R110 1K
R35 46.4K 1%
J4 MINI DIN 4
J3 MINI DIN 4
S-VIDEO RECORD A
S-VIDEO RECORD B
J9D RCAX4 PC
J9B RCAX4 PC
COMPOSITE RECORD A
COMPOSITE RECORD B
U13A
74HC04
U13B
74HC04
COPY
CITATION
Hayward, California
Size C
Document Number C70VBD13.SCH
REV D1
Date: August 6, 1997 Sheet 3 of 4


YOUT
COUT
M20L
COMP #1
COMP #2
COMP #3
COMP #4
COMP #5
COMP #6
COMP #7
COMP #8
J13C RCAX4 PC
J13A RCAX4 PC
J12C RCAX4 PC
J12A RCAX4 PC
J13D RCAX4 PC
J13B RCAX4 PC
J12D RCAX4 PC
J12B RCAX4 PC
R84 75
R75 75
R71 75
R66 75
R133 75
R134 75
R135 75
R136 75
C0
C1
C2
C3
C4
C5
C6
C7
U14
HC4051
C52 22U
U1
HC4052
C3 22U
C2 .10 AM
R3 3.3M
U24
HC4052
C82 22U
+5V
-5V
0-5V
0+5V
COMP1_YOUT
M2COMP
SVID1_YOUT
U27D
U27C
U27A
U27B
HC4066
C11 10U
R17 3.3M
R16 46.4K 1%
R117 1K
R116 1.10K
C107 100U 25V
R115 825
U2B EL2411C
R10 75
R12 46.4K 1%
MAIN S-VID OUT 2
J1 MINI DIN 4
R120 825
R119 1.10K
R118 1K
U2C EL2411C
C7 100U 25V
R1 75
R7 46.4K 1%
R2 46.4K 1%
CT[0..7]
U13C 74HC04
=SVID/COMP
SRCSEL2
SRCSEL1
SRCSEL0
J8 MINI DIN 4
J7 MINI DIN 4
J6 MINI DIN 4
J5 MINI DIN 4
S-VID #1
S-VID #2
S-VID #3
S-VID #4
R64 75
R65 75
R62 75
R61 75
R63 75
R59 75
R60 75
R55 75
SC0
SY0
SC1
SY1
SC2
SY2
SC3
SY3
U10
HC4052
MAINC
MAINY
C45 22U
C6 .10 AM
SC[0..3]
SY[0..3]
A+5V
C83 1000U 16V
C84 1000U 16V
COPY
CITATION
Hayward, California
Size C
Document Number C70VBD14.SCH
REV D1
Date: August 6, 1997 Sheet 4 of 4



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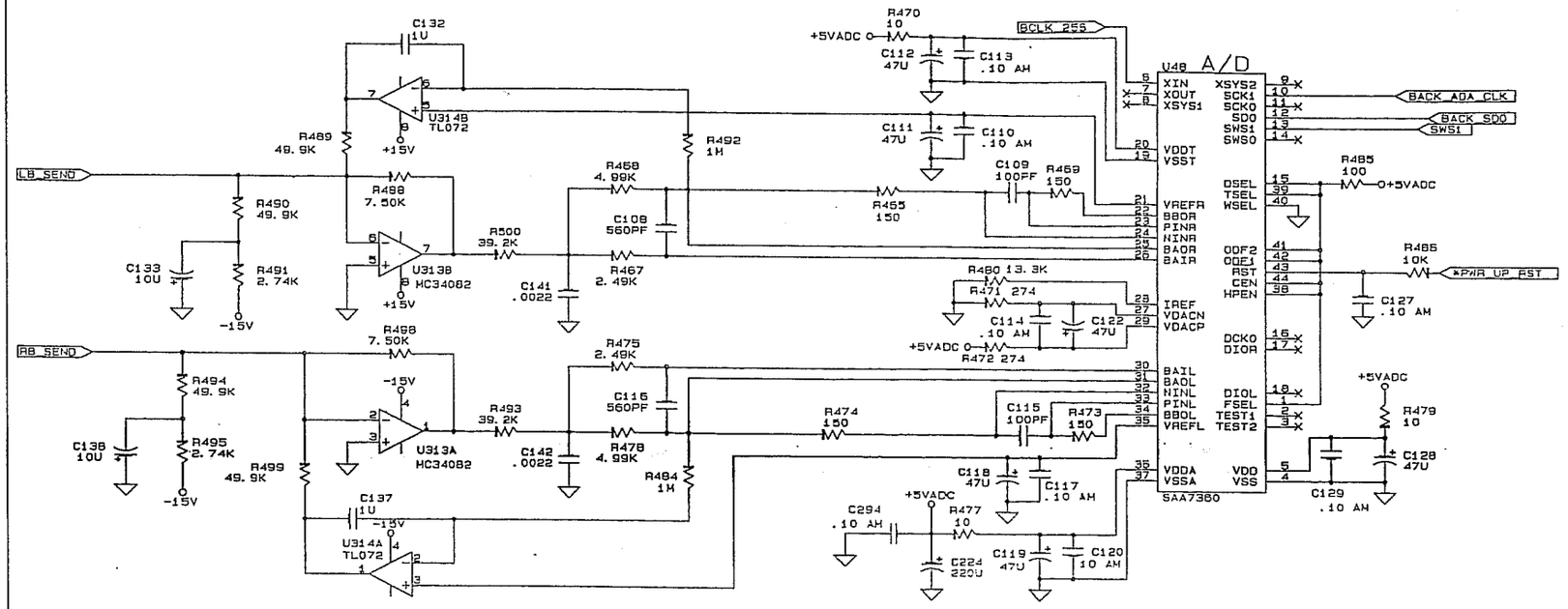
CITATION Hayward, California		
Title: VCA CIRCUITS 400-02006-03		
Size: C	Document Number: C7MBD002.SCH	REV: D0
Date: April 26, 1995	Sheet 2 of 11	

ALIAS FILTERS

ANALOG TO DIGITAL CONVERTER



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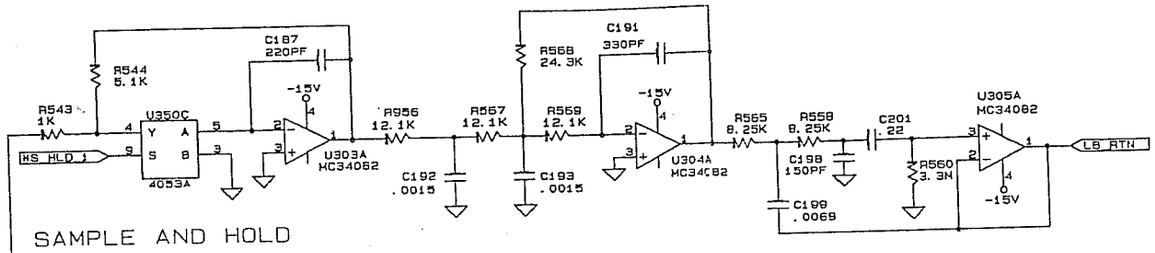
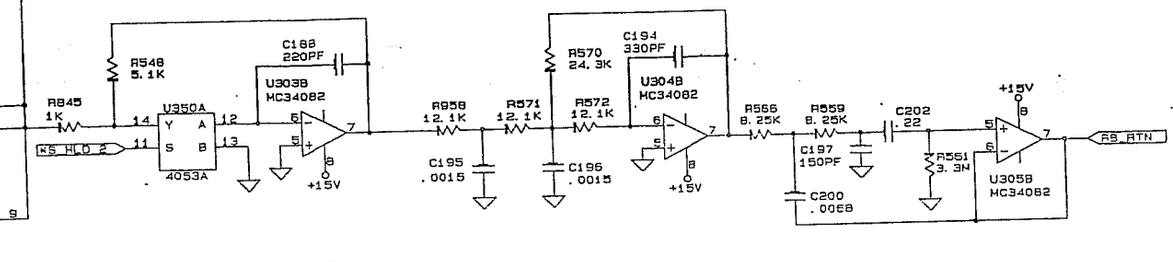
CITATION Hayward, California		
Title A/D CONVERTER 400-02006-03		
Size C	Document Number C7HBD003.SCH	REV D0
Date: April 26, 1995	Sheet 3 of 11	

DIGITAL TO ANALOG CONVERTER

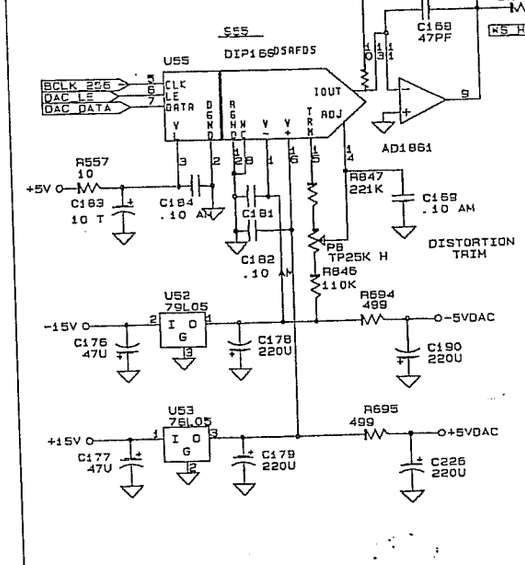


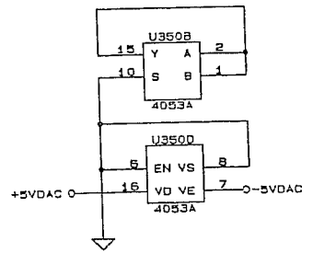
SAMPLE AND HOLD

SMOOTHING FILTERS



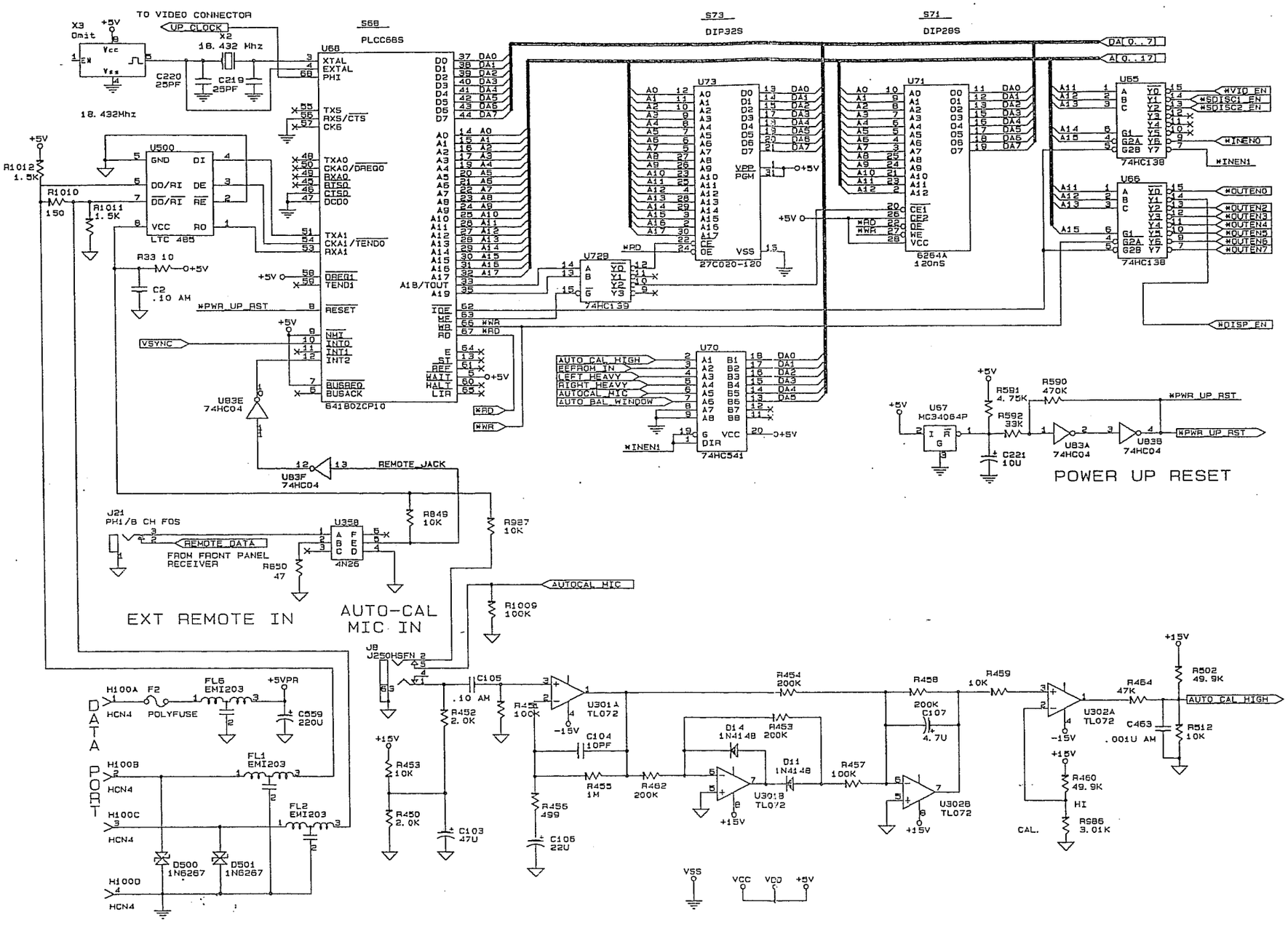
SAMPLE AND HOLD





COPY

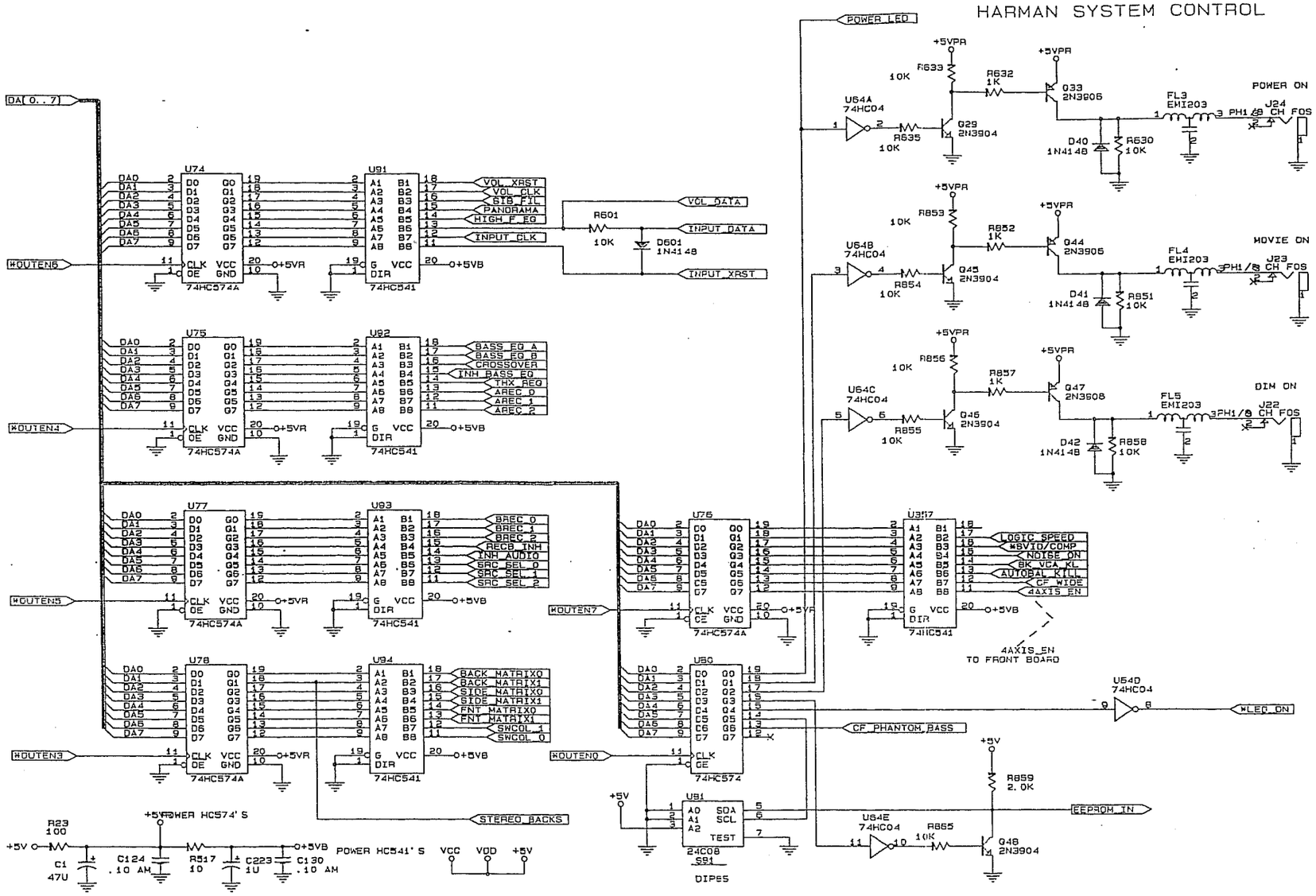
CITATION	Hayward, California	
Title	D/A CONVERTER 400-02006-06	
Size C	Document Number C7HB0004.SCH	REV D0
Date: April 26, 1995	Sheet 4 of 11	



COPY

CITATION		
Hayward, California		
Title: CPU 400-02006-03		
Size: C	Document Number: C7HB0005.SCH	REV: D0
Date: April 26, 1995	Sheet 5 of 11	

HARMAN SYSTEM CONTROL



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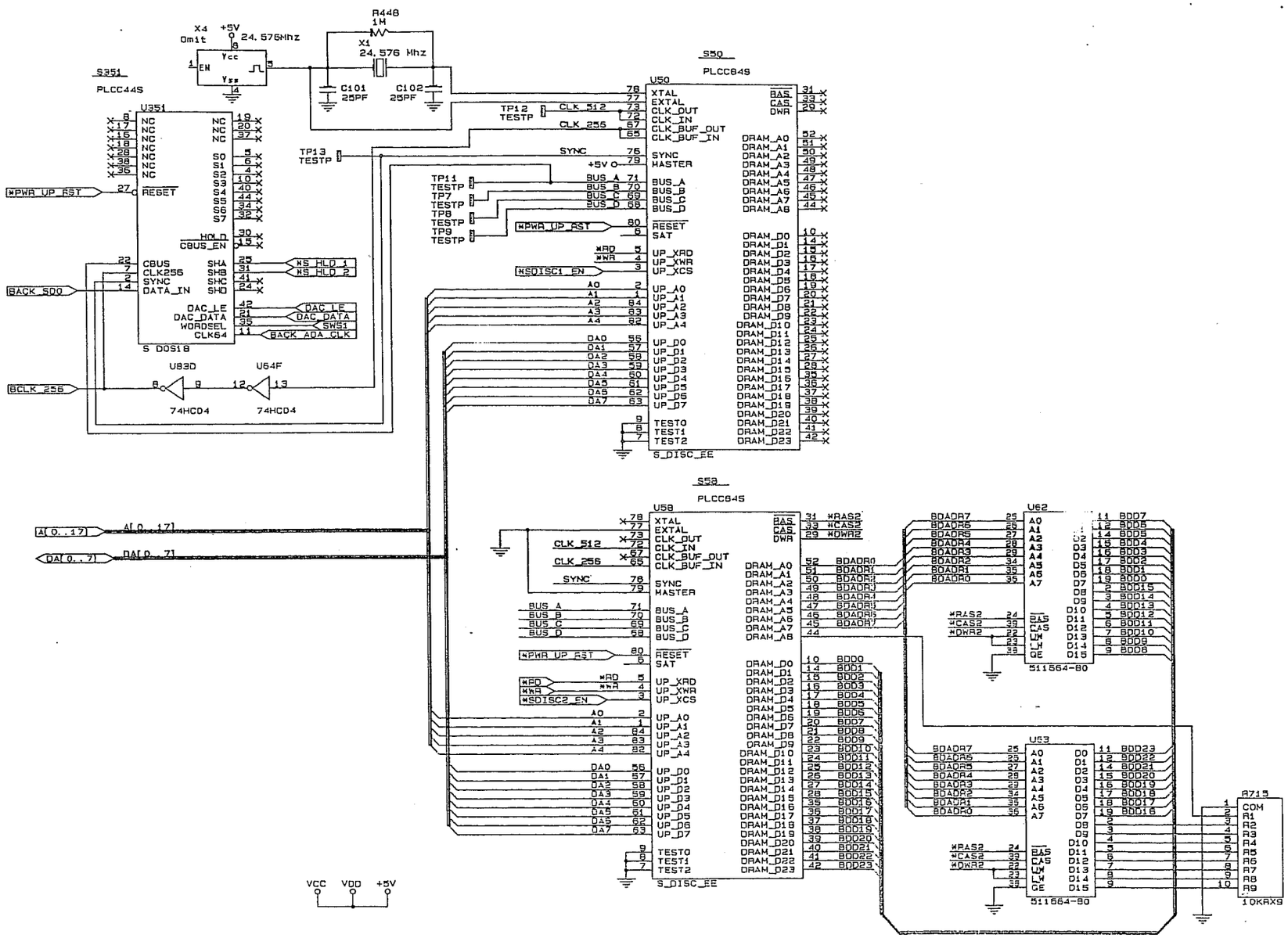
CITATION		
Hayward, California		
Title: LATCH 400-02006-03		
Size: C	Document Number: C7HB0006.SCH	REV: D0
Date: April 25, 1996	Sheet: 6 of 11	



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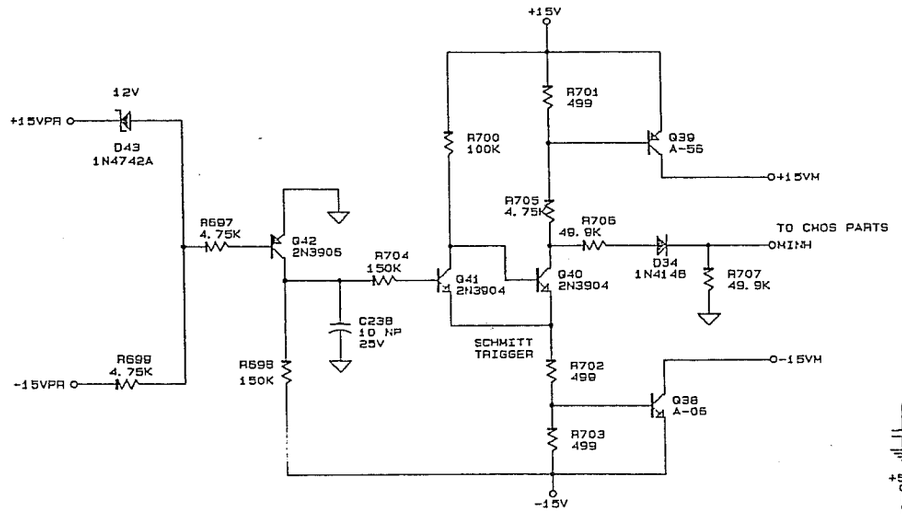
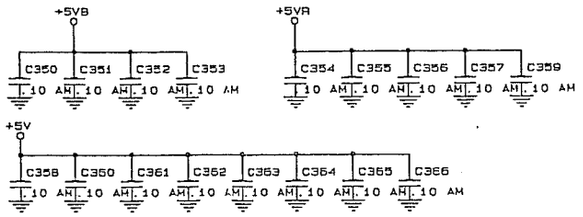
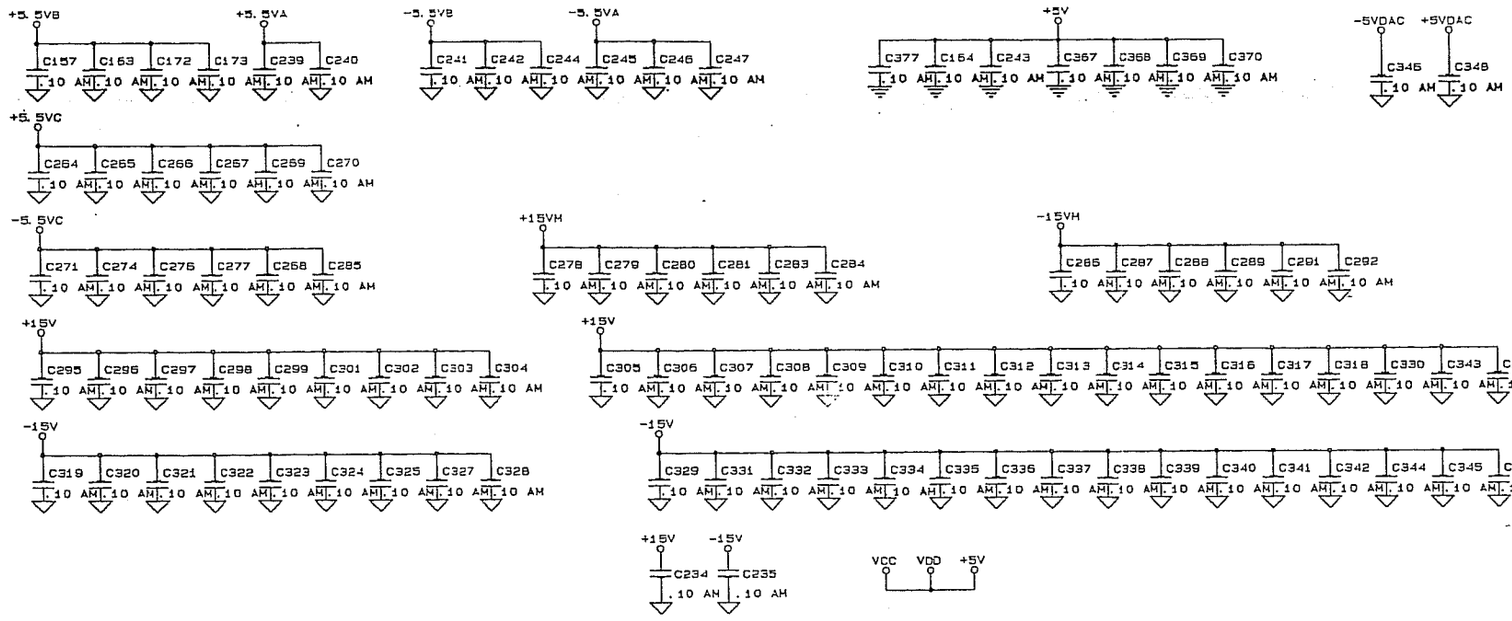
CITATION		
Hayward, California		
Title: DSP 400-02005-03		
Size: C	Document Number: C7HBD007.SCH	REV: D0
Date: April 25, 1996	Sheet 7 of 11	



MUTING CIRCUIT





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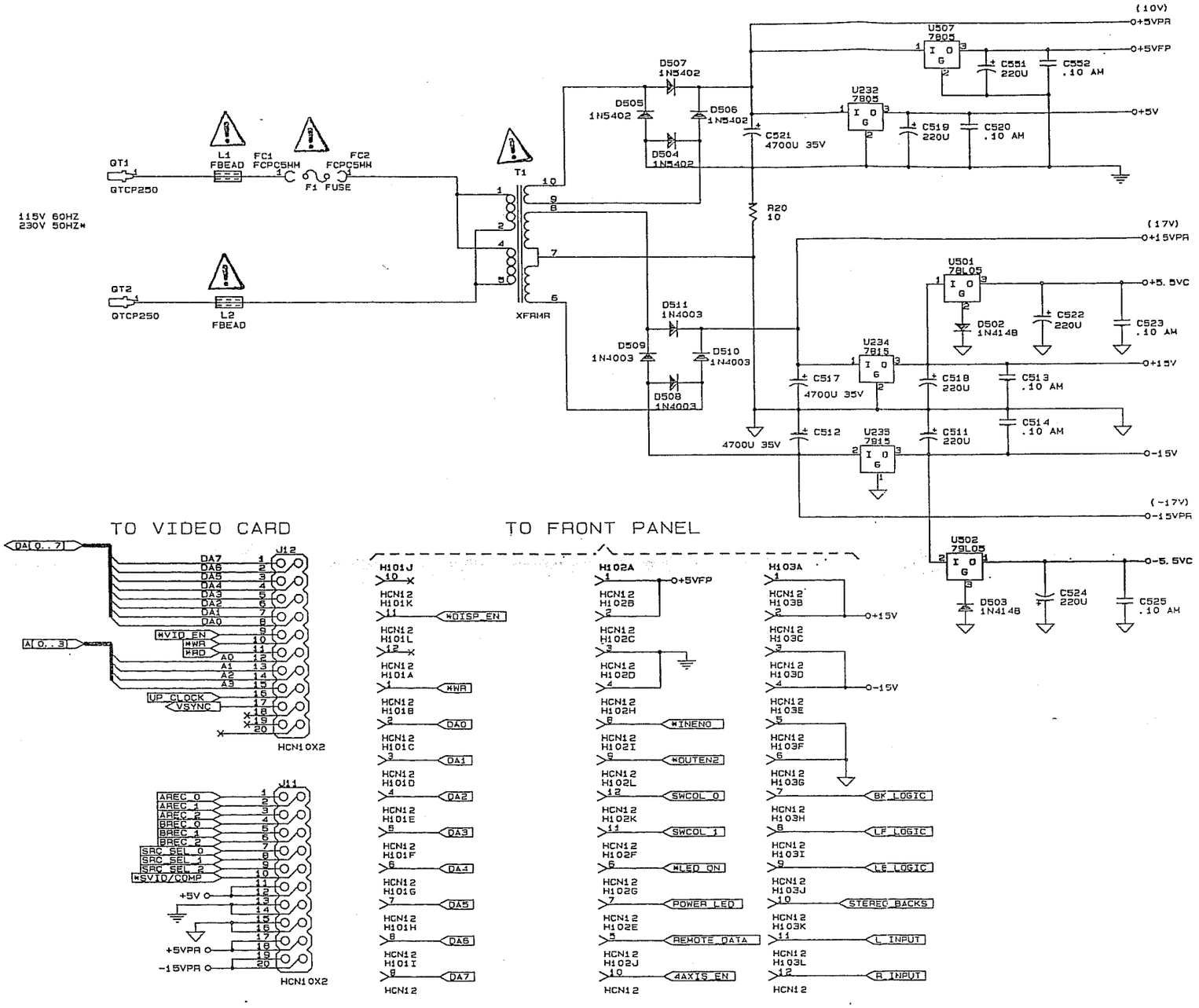
CITATION Hayward, California		
Title: MUTING 400-02006-03		
Size: C	Document Number: C7MB0008.SCH	REV: D0
Date: April 26, 1995	Sheet 8 of 11	



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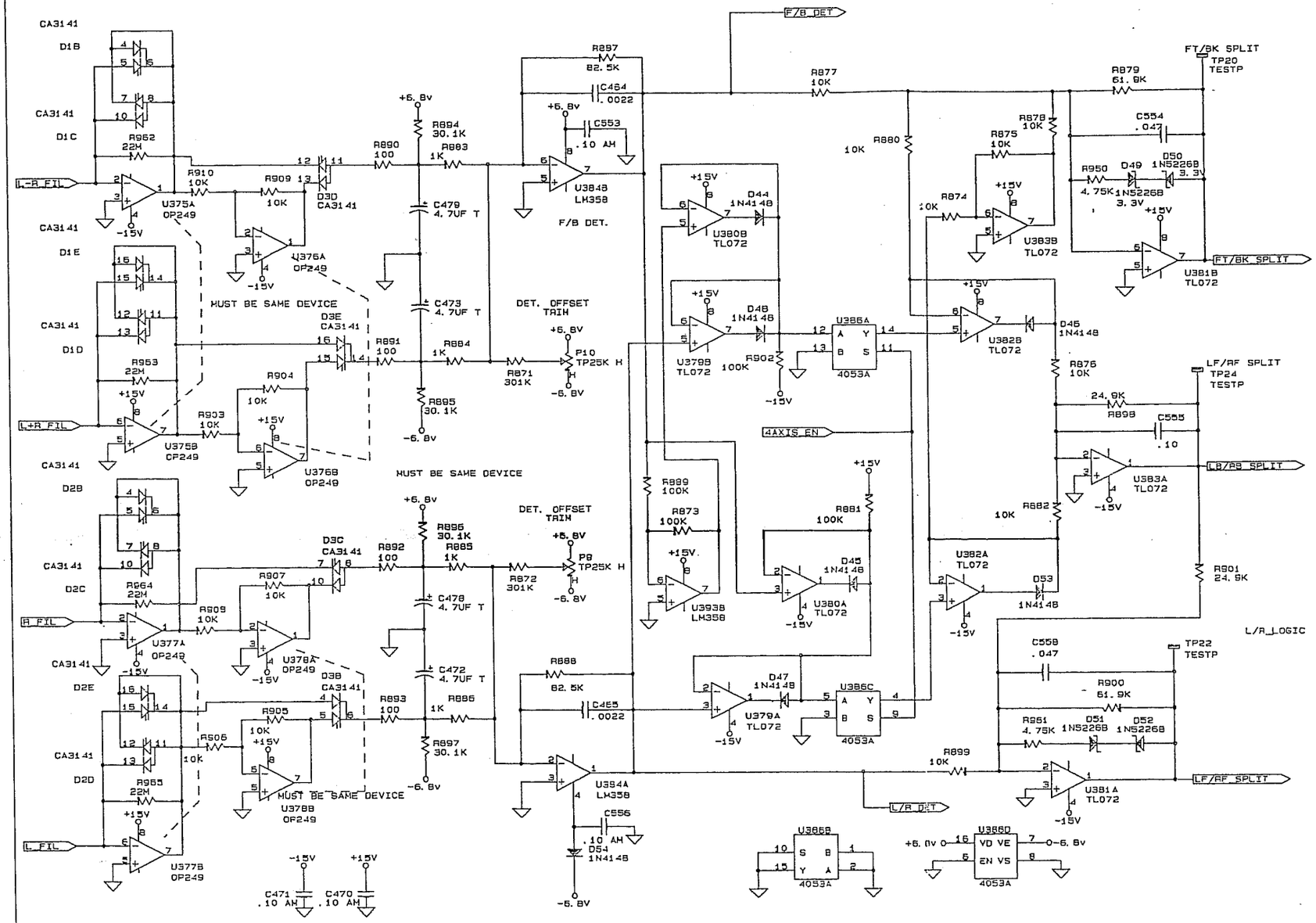
CITATION		
Hayward, California		
Title: CITATION 7.0 POWER SUPPLY 400-02005-03		
Size: C	Document Number: C7MBD009.SCH	REV: 00
Date: April 25, 1996	Sheet 9 of 11	



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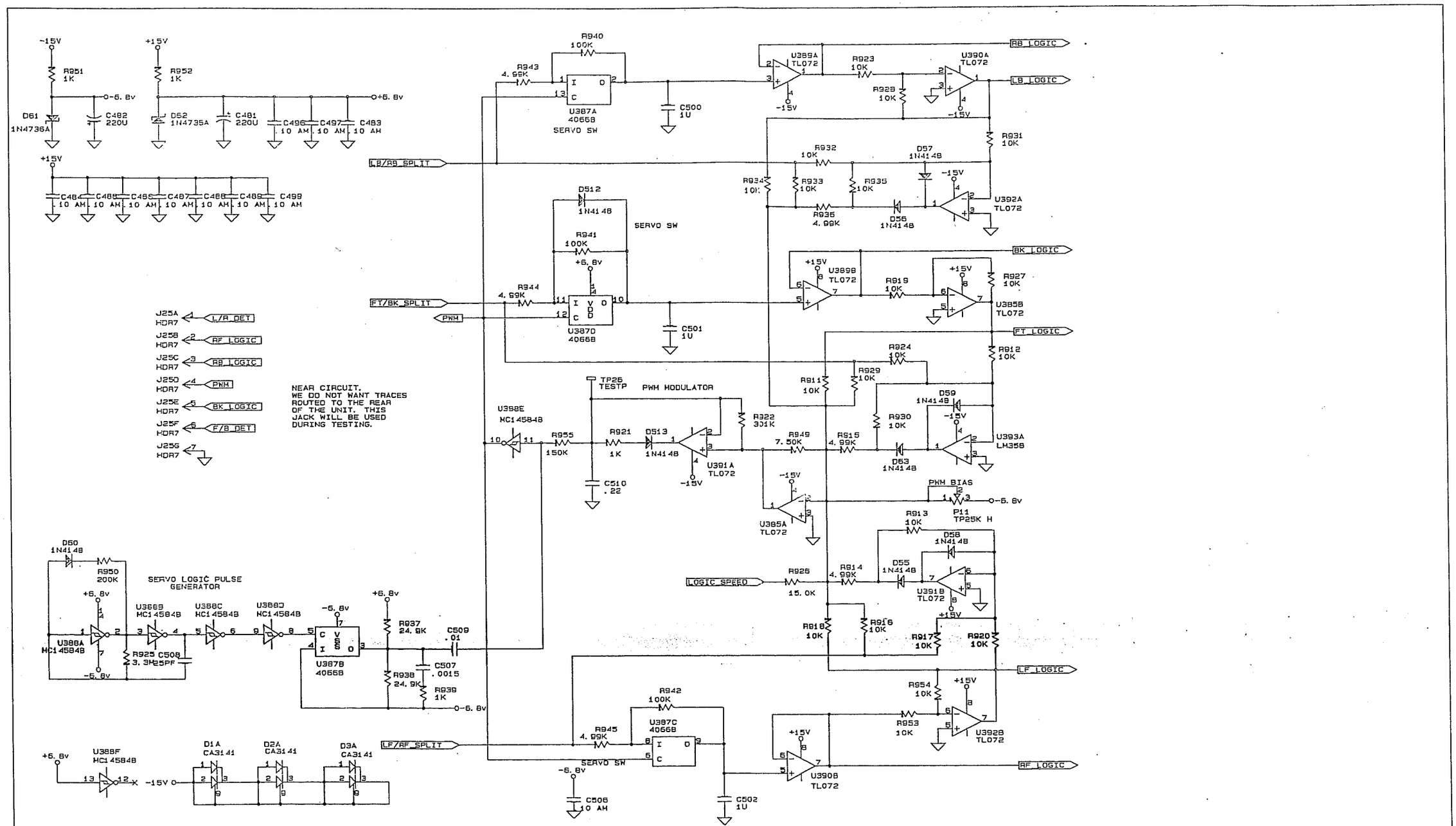
Hayward, California		
Title: CITATION 7.0 CVG DET/SPLITTER 400-02005-03		
Size: C	Document Number: C7HBD010.SCH	REV: D0
Date: April 26, 1995	Sheet 10 of 11	



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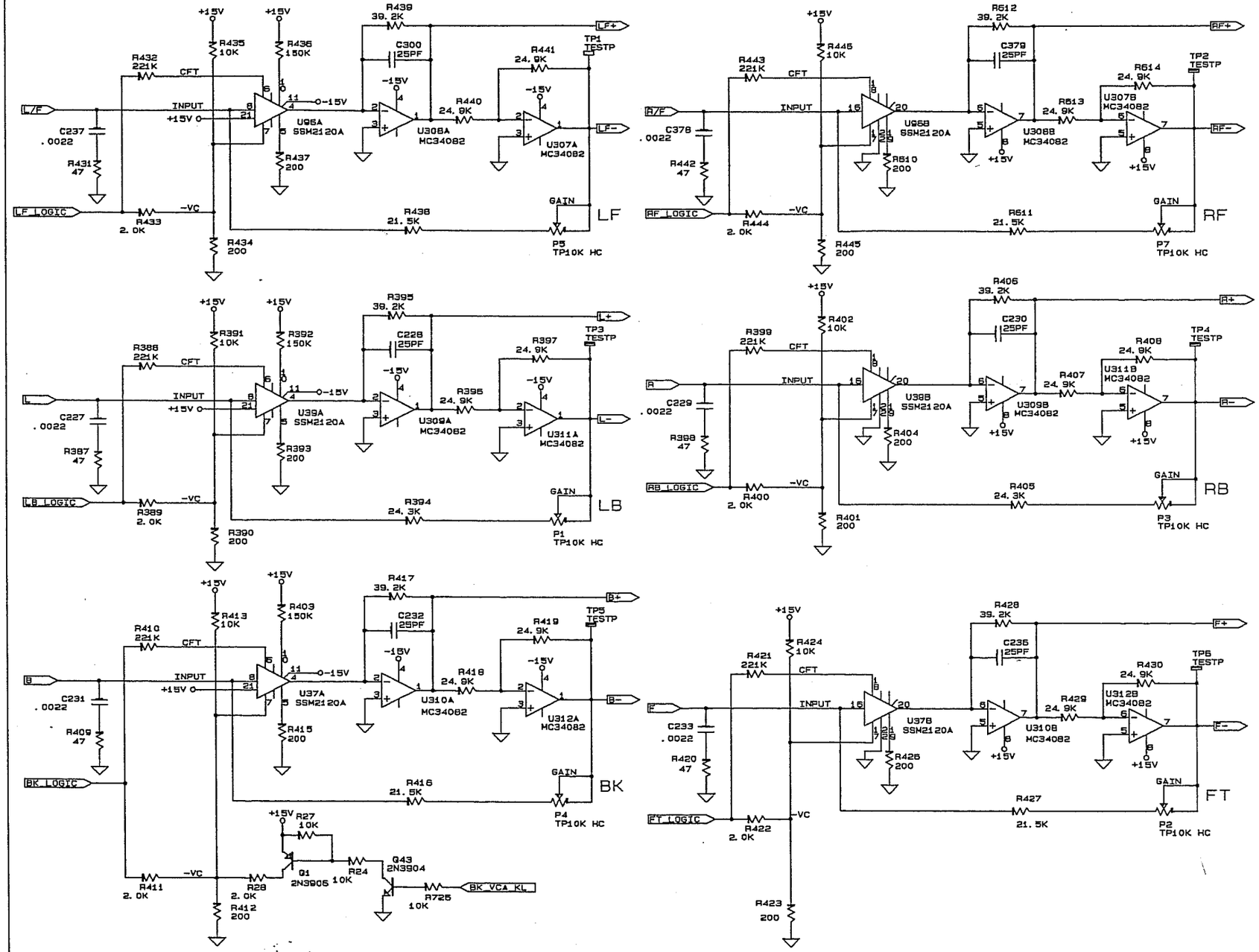
CITATION Heyward, California		
Title CITATION 7.0 CVG SERVO LOGIC 400-02006-03		
Size C	Document Number C7MBD011.SCH	REV D0
Date: April 26, 1995	Sheet 11 of 11	



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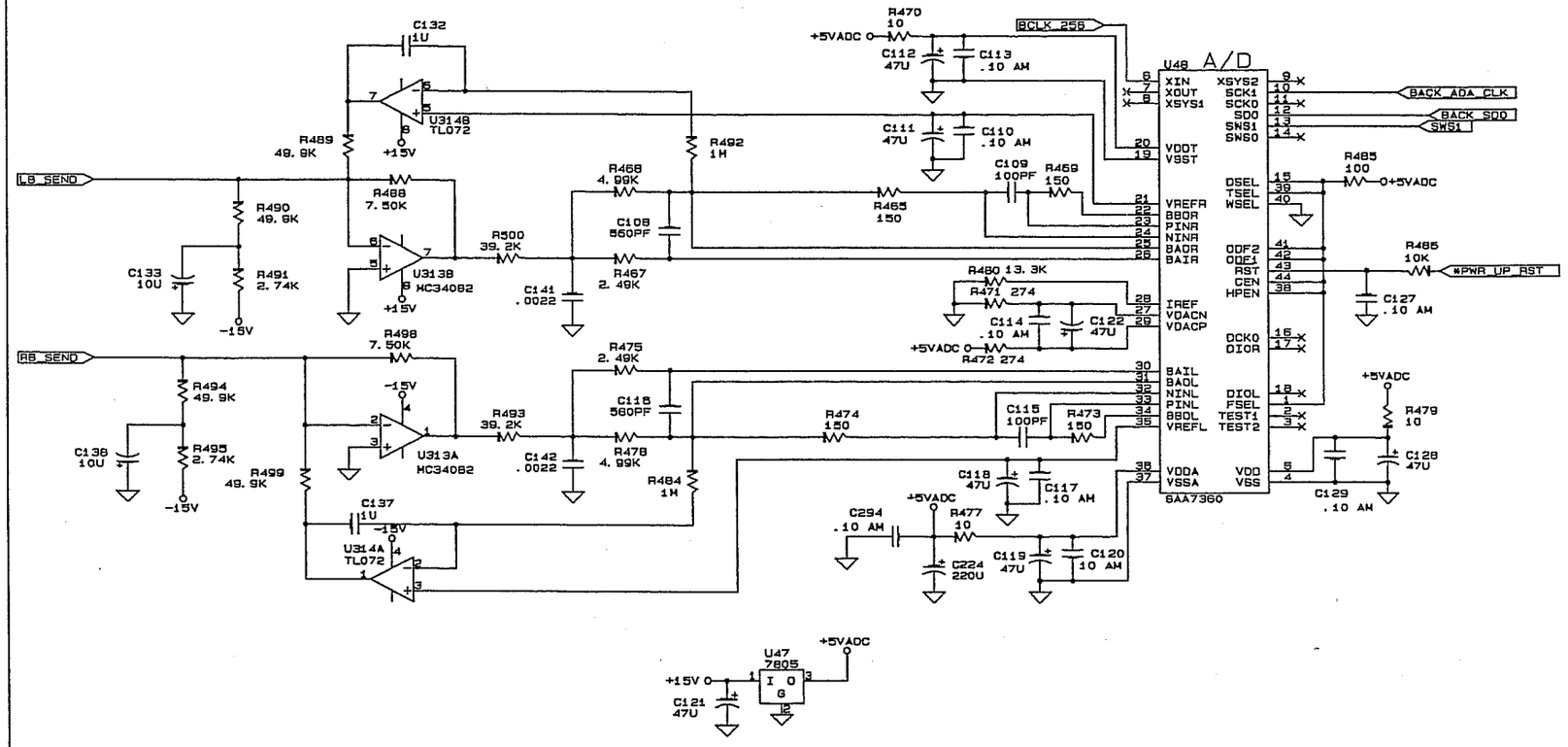
Size: C	Document Number: C7HB0202.SCH	REV: D2
Date: September 5, 1995	Sheet 2 of 11	

ALIAS FILTERS

ANALOG TO DIGITAL CONVERTER



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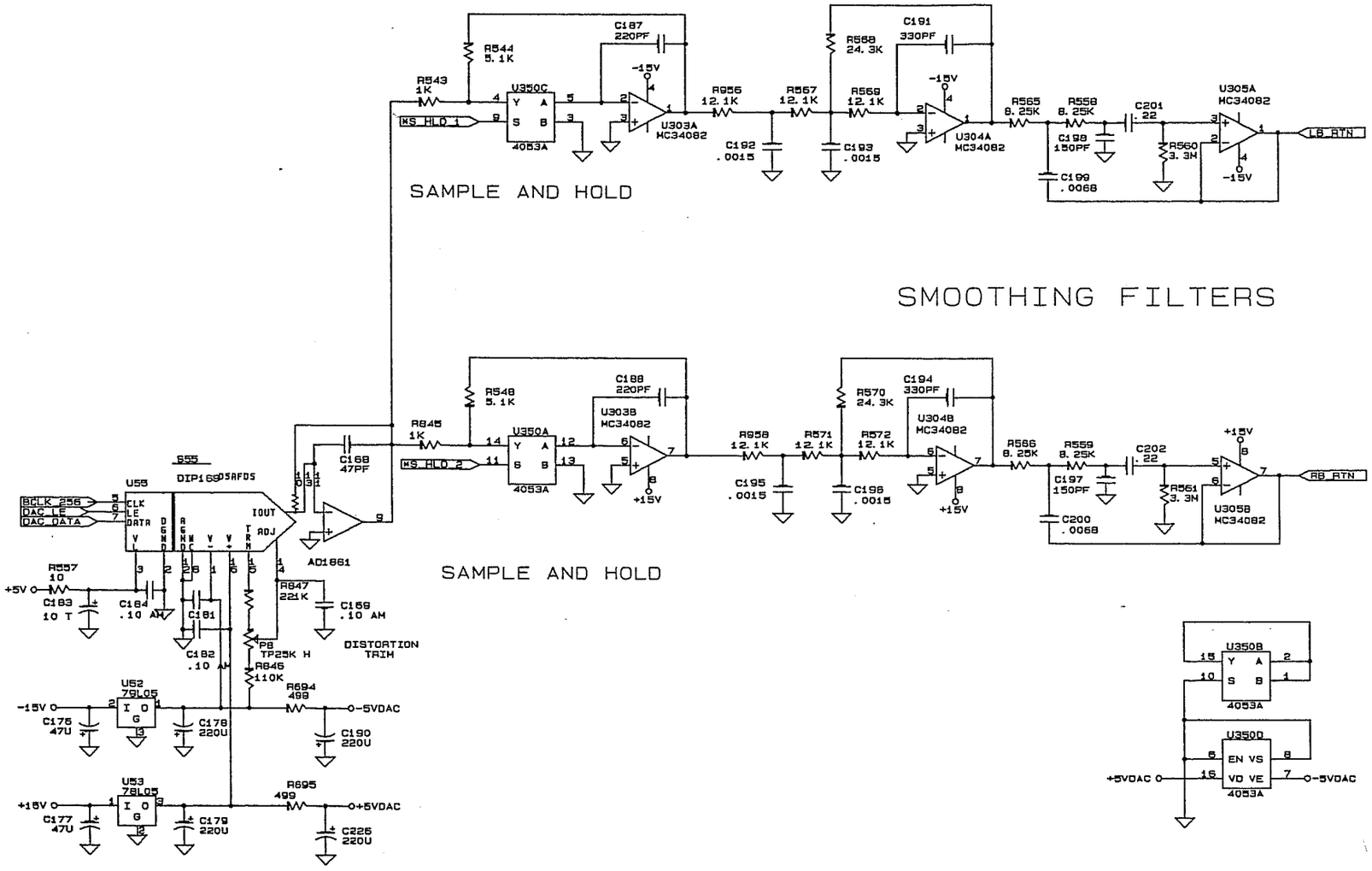
Title A/D CONVERTER 400-R2006-03		
Size C	Document Number C7MB0203, SCH	REV D2
Date: September 5, 1995	Sheet 3 of 11	

DIGITAL TO ANALOG CONVERTER



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CITATION Hayward, California		
Title D/A CONVERTER 400-02006-06		
Size C	Document Number C7HBD204.SCH	REV D2
Date: September 5, 1995	Sheet 4 of 11	

TO VIDEO CONNECTOR

UP_CLOCK

X3 Omit

X2 18.432 Khz

18.432Mhz

C220 25PF

C219 25PF

S58 PLCC68S

U68 64180ZCP10

S73 DIP32S

S71 DIP28S

U73 27C020-120

U71 6264A 120nS

U65 74HC138

U66 74HC138

DA[0..7]

A[0..17]

jumper

PIN 12 U80

U500 LTC 485

R1012 1.5K

TXS RXS/CTS CKB

TXA0 CKA0/DREQ0 RXA0 RTS0 CTS0 DCD0

TXA1 CKA1/TEND0 RXA1

DREQ1 TEND1

RESET

NMI INT0 INT1 INT2

BUSREQ BUSACK

MWR MRD

U72B 74HC139

U83E 74HC04

U83F 74HC04

R33 10

C2 .10 AM

REMOTE_JACK

J21 PH1/8 CH FOS

REMOTE_DATA

FROM FRONT PANEL RECEIVER

U358 4N26

R850 47

R848 10K

R987 10K

EXT REMOTE IN

AUTOCAL_MIC

R1009 100K

AUTO-CAL MIC IN

R1010 150

J8 J250HSFN 2

U70 74HC541

AUTO_CAL_HIGH

EEPROM_IN

LEFT_HEAVY

RIGHT_HEAVY

AUTOCAL_MIC

AUTO_BAL_WINDOW

MINEN1

U67 MC34064P

R591 4.75K

R592 33K

C221 10U

R590 470K

U83A 74HC04

U83B 74HC04

MPWR_UP_RST

POWER UP RESET

C105 .10 AM

R452 2.0K

R458 100K

U301A TL072

R454 200K

R458 200K

R459 10K

C107 4.7U

U302A TL072

R454 47K

R502 49.9K

C453 .001U AM

R512 10K

R453 10K

R450 2.0K

C103 47U

C104 10PF

R455 1M

R452 200K

R456 499

C105 22U

D14 1N4148

D11 1N4148

R463 200K

U301B TL072

R457 100K

U302B TL072

R460 49.9K

HI

CAL.

R986 3.01K

H100A F2 FL6 EMI203 +5VPR HCN4 POLYFUSE C559 220U

DATA PORT

H100B FL1 EMI203 HCN4

H100C FL2 EMI203 HCN4

H100D HCN4

R1011 1.5K

D500 1N6267

D501 1N6267

VSS VCC VDD +5V

COPY

CITATION Hayward, California		
Title CPU 400-02006-03		
Size C	Document Number C7MBD205.SCH	REV D2
Date: September 5, 1995	Sheet 5 of 11	

HARMAN SYSTEM CONTROL

DA[0..7]

MOUTEN5 · MOUTEN4 · MOUTEN5 · MOUTEN7 · MOUTEN3 · MOUTEN0

U74 · U91 · U75 · U92 · U77 · U93 · U78 · U94 · U76 · U80 · 74HC574A · 74HC541

VOL_XRST · VOL_CLK · SIB_FIL · PANORAMA · HIGH_F_EQ · INPUT_CLK · INPUT_DATA · INPUT_XRST · VOL_DATA

R501 10K · D601 1N4148

BASS_EQ_A · BASS_EQ_B · CROSSOVER · INH_BASS_EQ · THX_REG · AREC_0 · AREC_1 · AREC_2

BREC_0 · BREC_1 · BREC_2 · RECB_INH · INH_AUDIO · SRC_SEL_0 · SRC_SEL_1 · SRC_SEL_2

BACK_MATRIX0 · BACK_MATRIX1 · SIDE_MATRIX0 · SIDE_MATRIX1 · FNT_MATRIX0 · FNT_MATRIX1 · SWCOL_1 · SWCOL_0

STEREO_BACKS

POWER_LED

U64A 74HC04 · R633 10K · R632 1K · Q33 2N3906 · Q29 2N3904 · R635 10K · FL3 EMI203 · D40 1N4148 · R630 10K · J24 · POWER ON · PH1/8 CH FOS

U64B 74HC04 · R853 10K · R852 1K · Q44 2N3906 · Q45 2N3904 · R854 10K · FL4 EMI203 · D41 1N4148 · R851 10K · J23 · MOVIE ON · PH1/8 CH FOS

U64C 74HC04 · R856 10K · R857 1K · Q47 2N3906 · Q46 2N3904 · R855 10K · FL5 EMI203 · D42 1N4148 · R858 10K · J22 · DIM ON · PH1/8 CH FOS

U357 · LOGIC_SPEED · *SVID/COMP · NOISE_ON · BK_VCA_KL · AUTOBAL_KILL · CF_WIDE · 4AXIS_EN

4AXIS_EN TO FRONT BOARD

U64D 74HC04 · MLED_ON

CF_PHANTOM_BASS PIN_3_U500 — JUMPER TO PAGE 5

U81 · 24C08 · SDA · SCL · TEST · S81 · DIPBS

U64E 74HC04 · R865 10K · Q48 2N3904 · R859 2.0K · EEPROM_IN

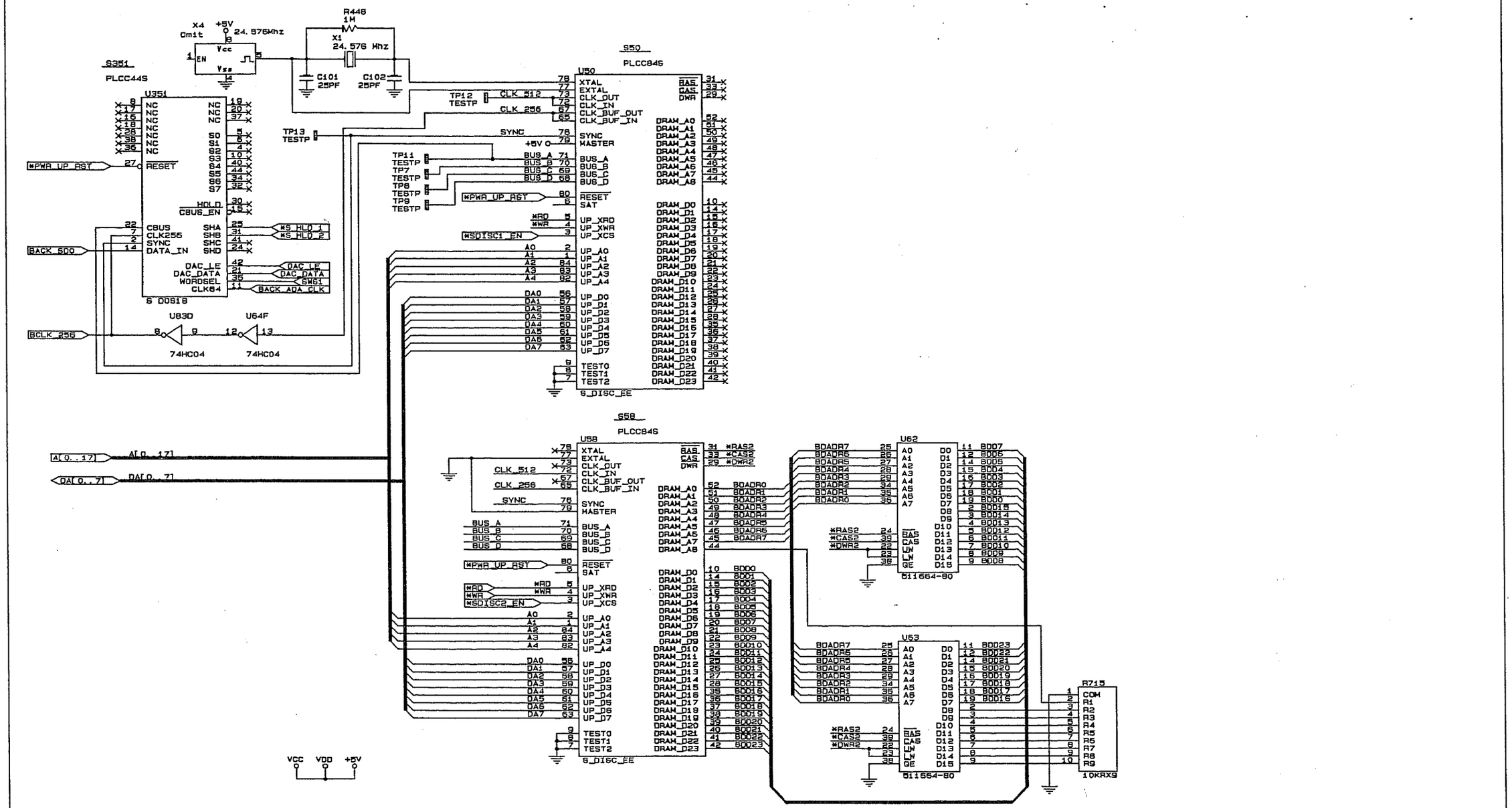
POWER HC574'S +5VR · POWER HC541'S +5VB

R23 100 · C1 47U · C124 .10 AM · R517 10 · C223 1U · C130 .10 AM

VCC VDD +5V

COPY

CITATION Hayward, California		
Title: LATCH 400-02006-03		
Size: C	Document Number: C7MB0206.SCH	REV: D2
Date: September 5, 1995	Sheet 6 of 11	



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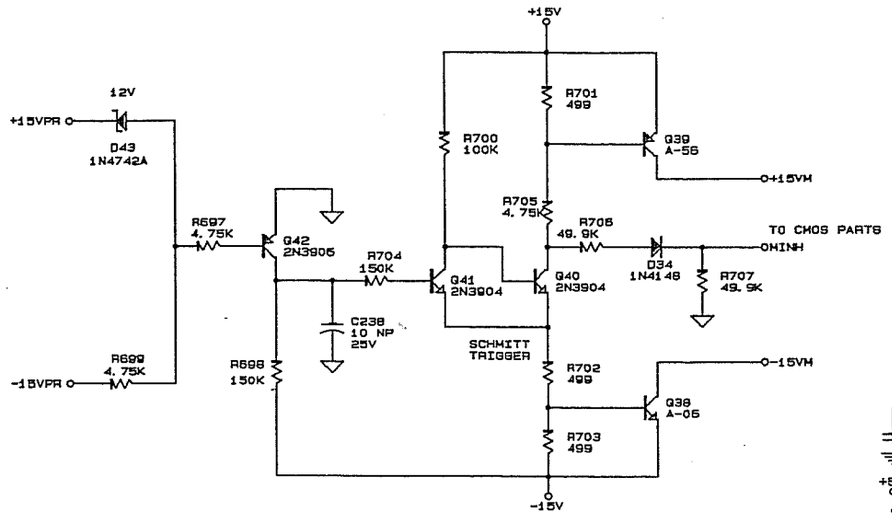
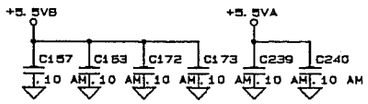
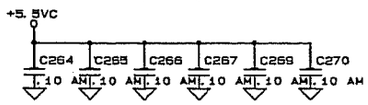
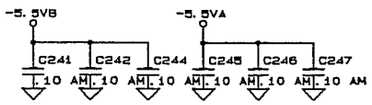
CITATION Hayward, California		
Title: DSP 400-02006-03		
Size: C	Document Number: C7MBD207.SCH	REV: D2
Date: September 5, 1995	Sheet 7 of 11	

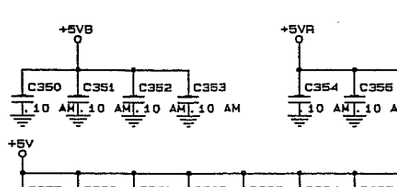


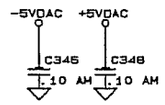
MUTING CIRCUIT











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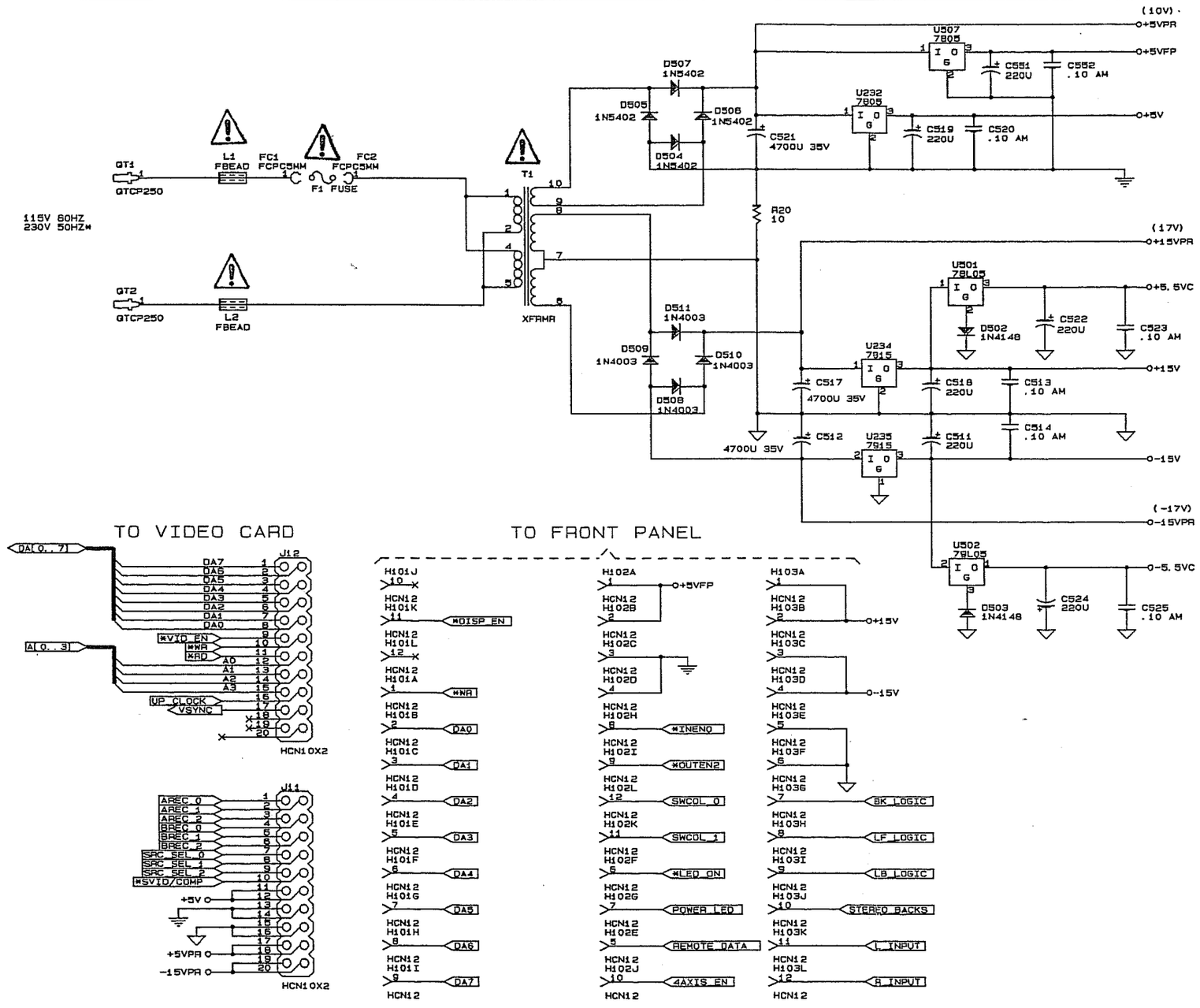
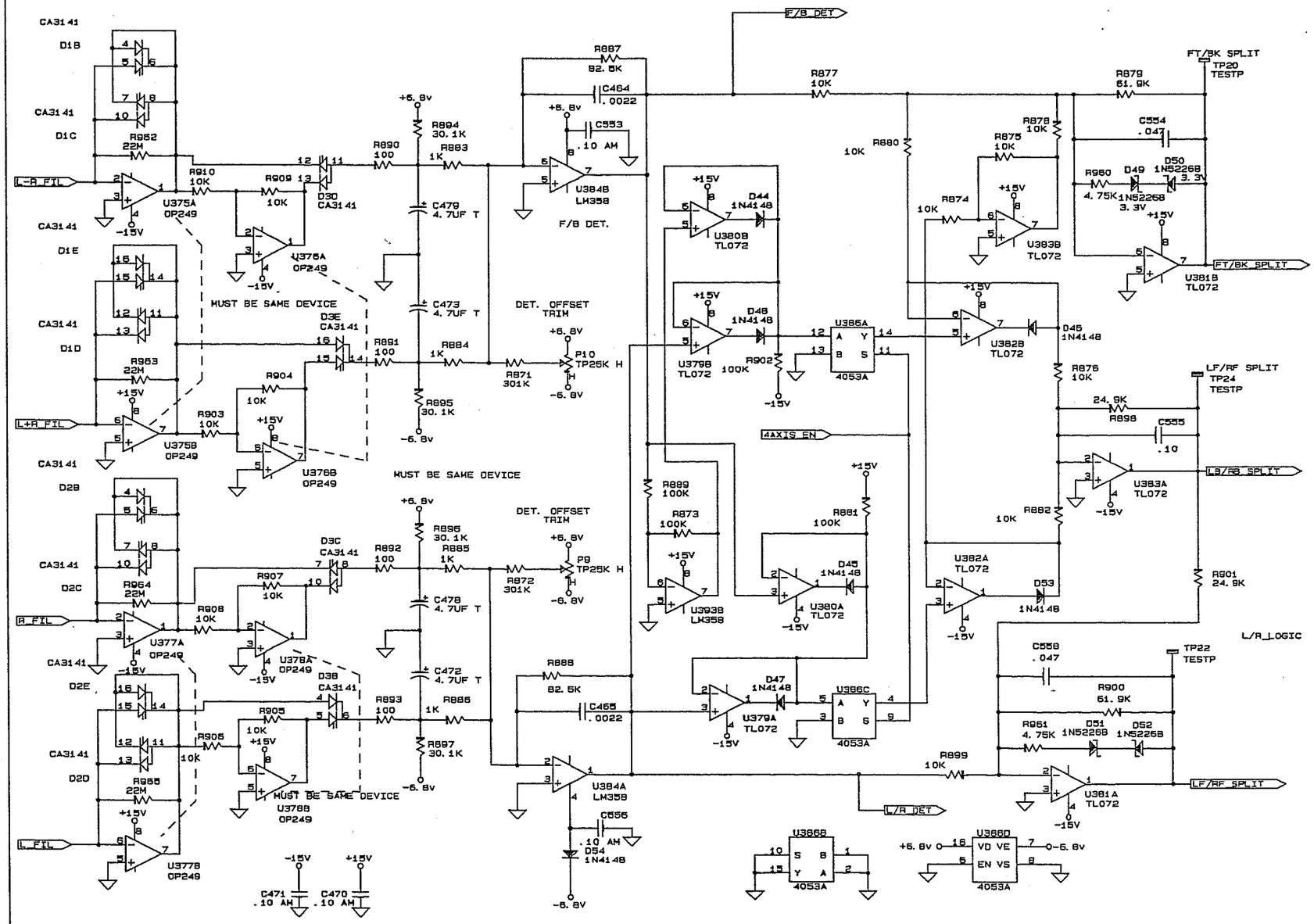
CITATION Hayward, California		
Title: MUTING 400-02006-03		
Size: C	Document Number: C7MB0208.SCH	REV: D2
Date: September 5, 1995	Sheet 8 of 11	



COPY

CITATION		
Heyward, California		
Title: CITATION 7.0 POWER SUPPLY 400-02006-03		
Size: C	Document Number: C7MBD209.SCH	REV: D2
Date: September 5, 1995	Sheet 9 of 11	



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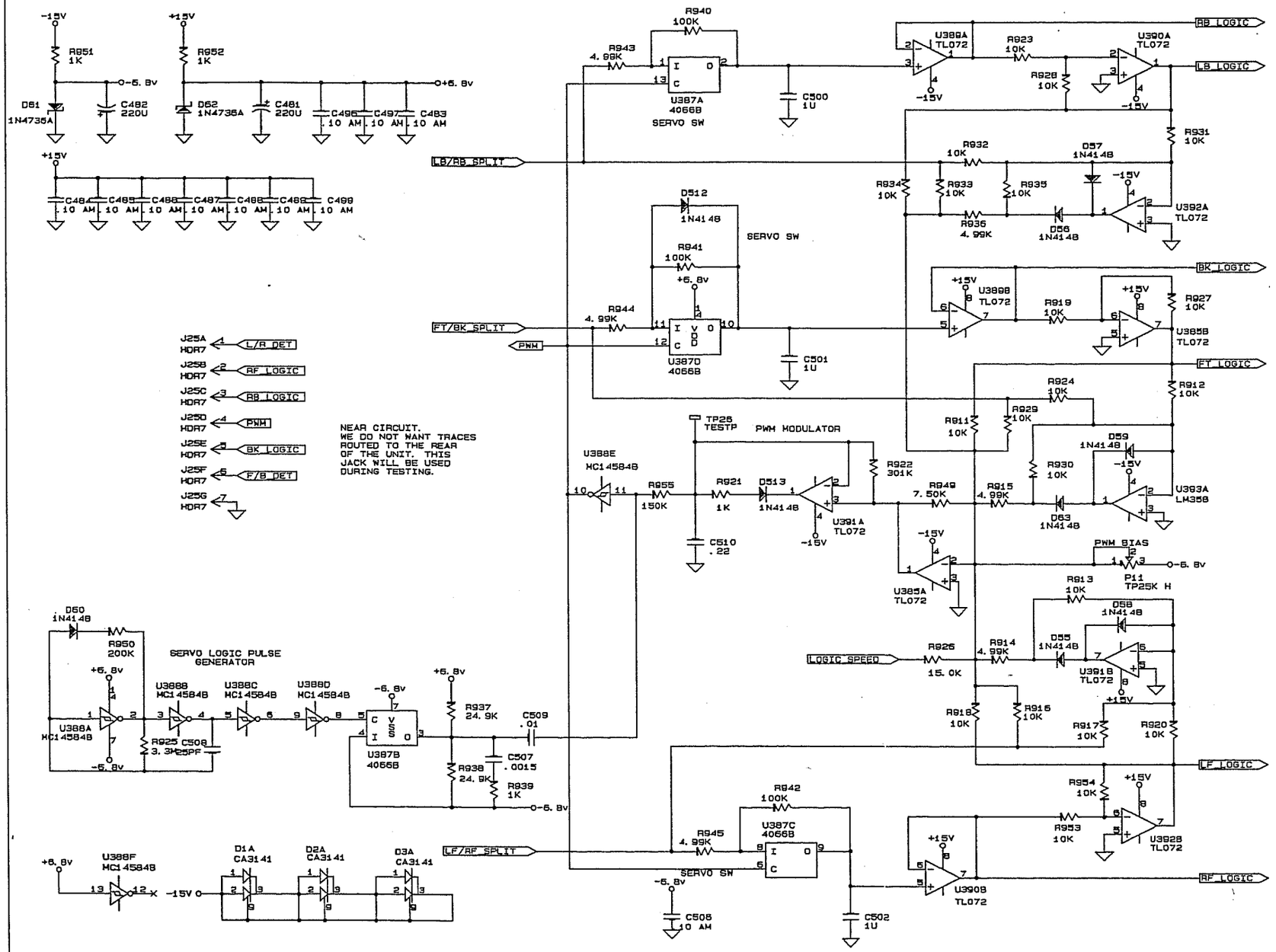
CITATION Hayward, California		
Title CITATION 7.0 CVG DET/SPLITTER 400-02006-03		
Size C	Document Number C7MBD210.SCH	REV D2
Date: September 5, 1995	Sheet 10 of 11	



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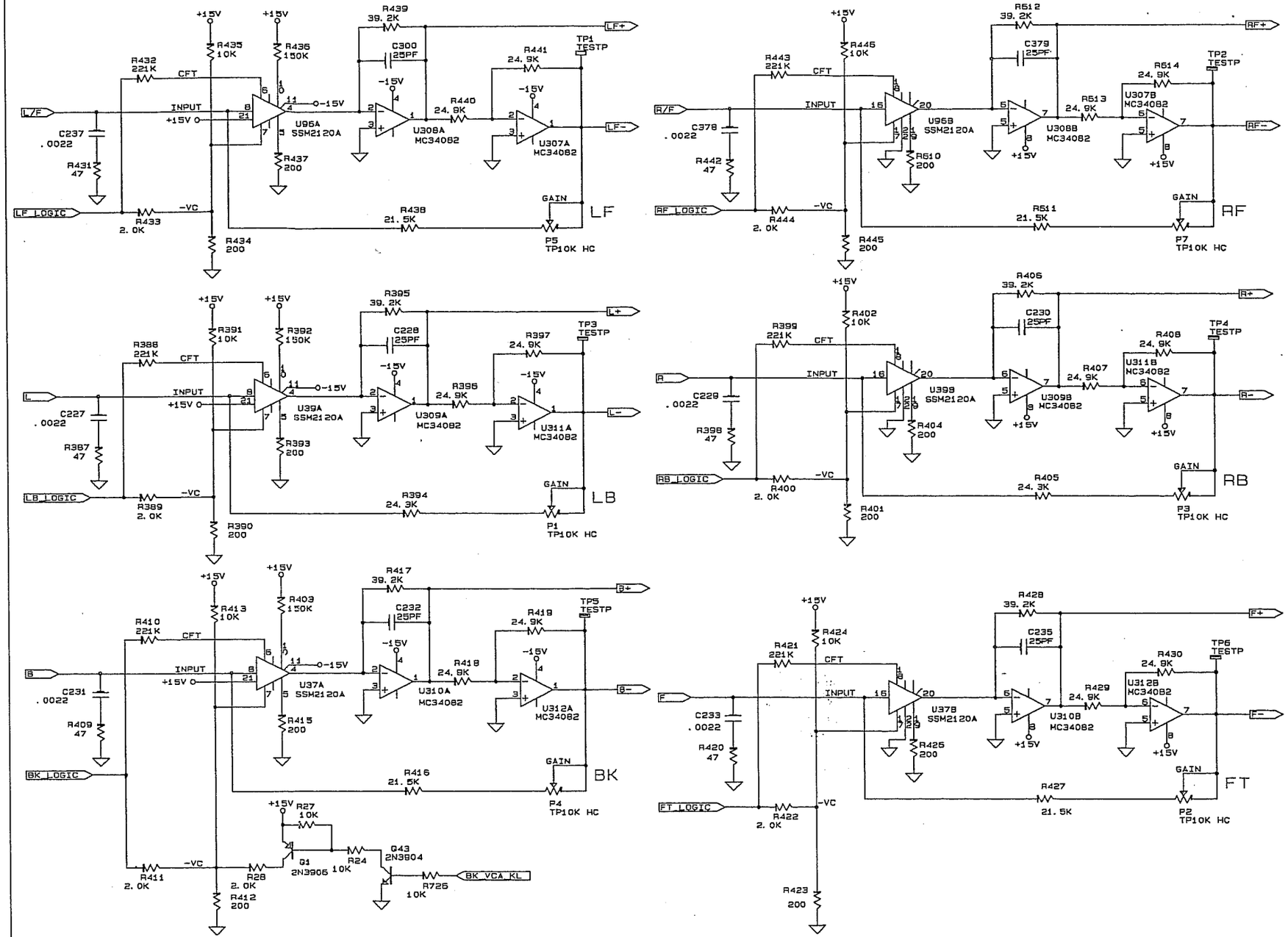
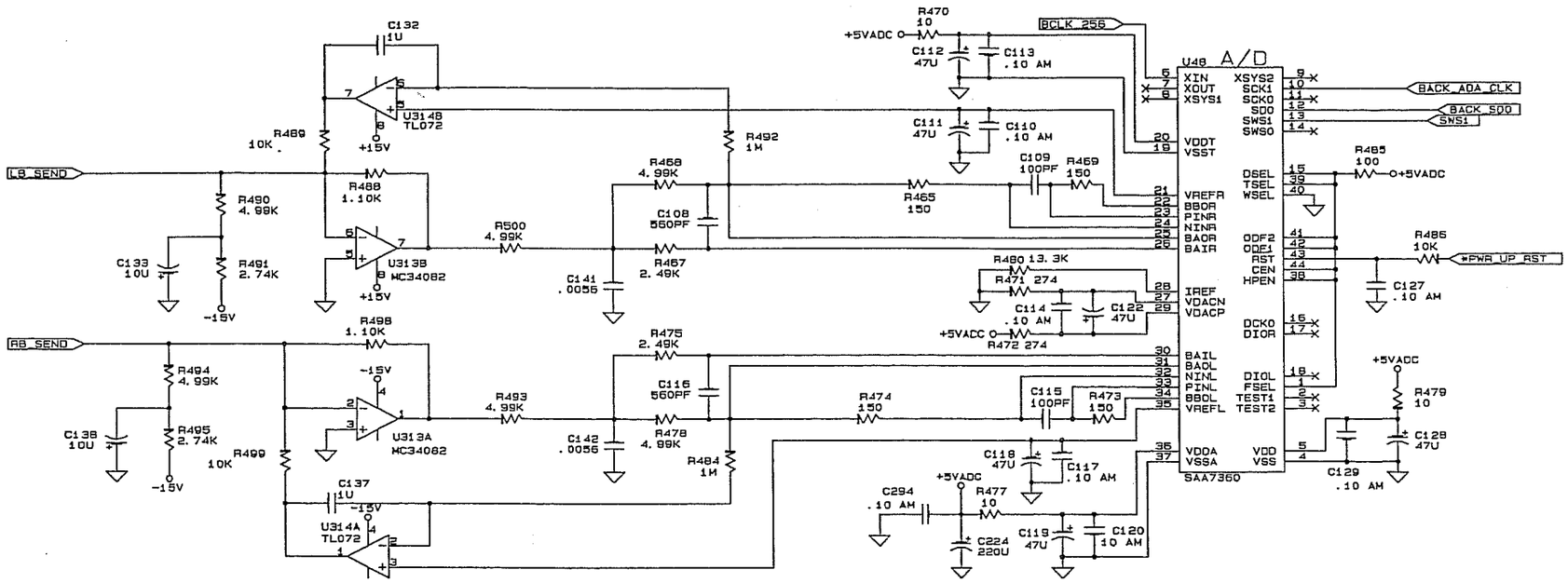
CITATION		
Hayward, California		
Title: CITATION 7.0 CVG SERVO LOGIC 400-02006-03		
Size: C	Document Number: C7MB0211.SCH	REV: D2
Date: September 5, 1995	Sheet 11 of 11	

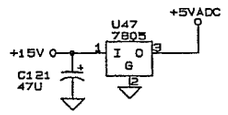


CITATION		
Hayward, California		
Title: VCA CIRCUITS		
Size: C	Document Number: C7MBC302.SCH	REV: C3
Date: April 26, 1995	Sheet 2 of 11	

ALIAS FILTERS

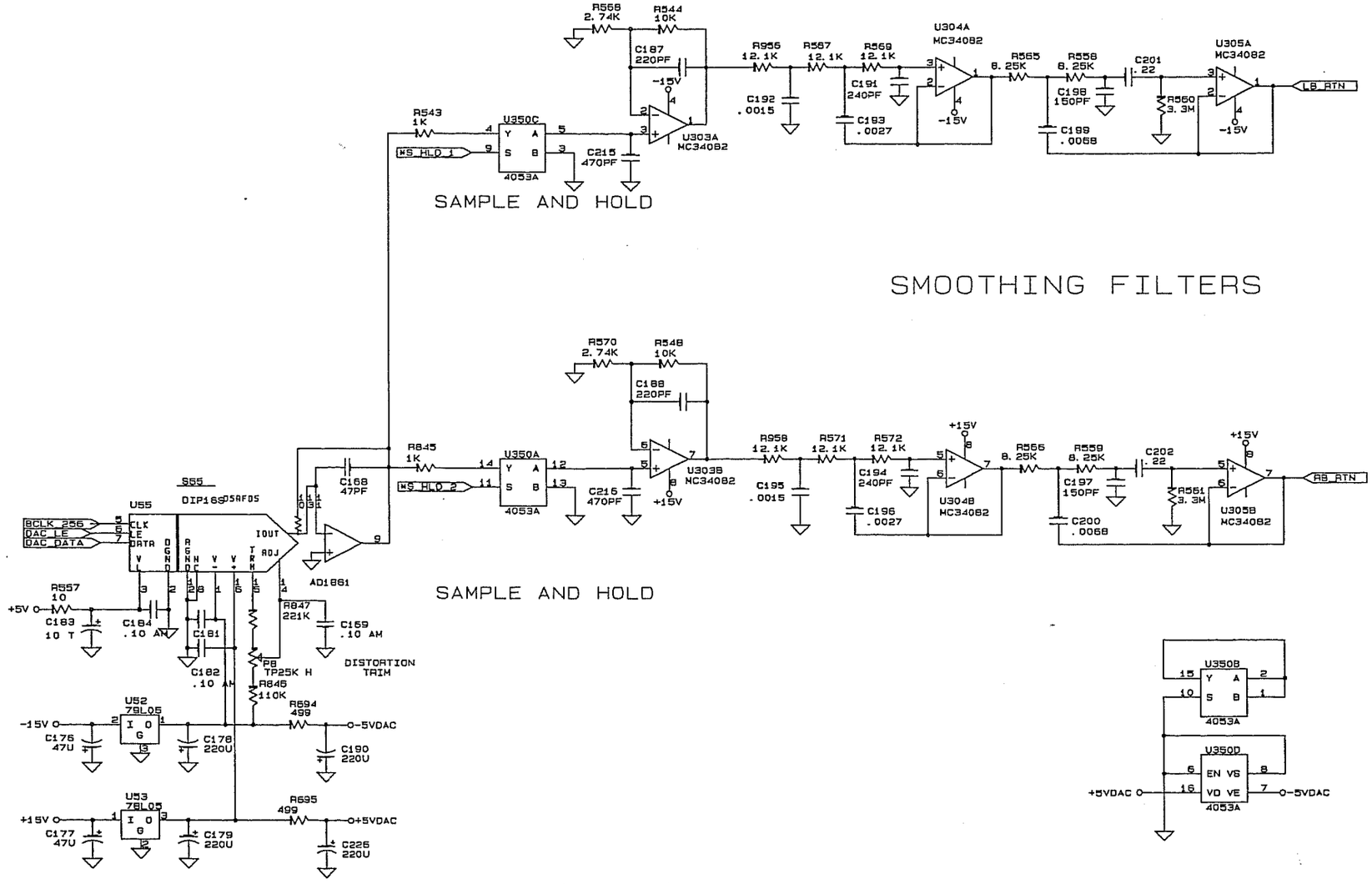
ANALOG TO DIGITAL CONVERTER



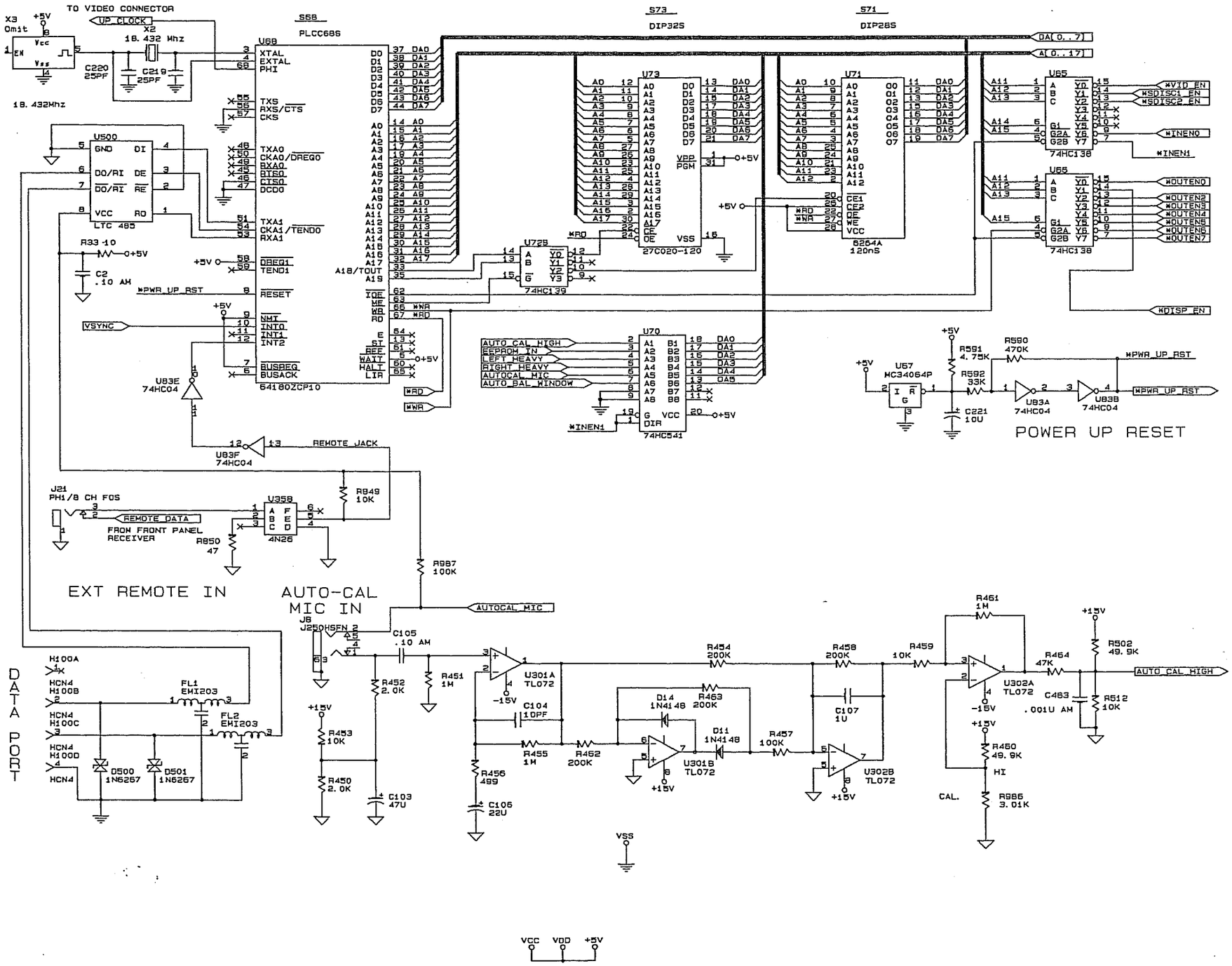


CITATION		
Hayward, California		
Size C	Document Number C7MBC303.SCH	REV C3
Date: April 26, 1995	Sheet 3 of 11	

DIGITAL TO ANALOG CONVERTER



CITATION		
Hayward, California		
Size: C	Document Number: C7MBC304, 8CH	REV: C3
Date: April 26, 1995	Sheet 4 of 11	



CITATION		
Hayward, California		
Size C	Document Number C7MBC305.SCH	REV C3
Date: April 25, 1995	Sheet 5 of 11	

HARMAN SYSTEM CONTROL

DA[0..7]

MOUTEN6 MOUTEN4 MOUTEN5 MOUTEN3 MOUTEN7 MOUTEN0

U74 U75 U77 U78 — 74HC574A (CLK, OE, VCC, GND, +5VA)

U91 U92 U93 U94 — 74HC541 (G, DIR, VCC, +5VB)

VOL_XRST
VOL_CLK
STB_FIL
PANORAMA
HIGH_F_EQ
INPUT_CLK
BASS_EQ_A
BASS_EQ_B
CROSSOVER
INH_BASS_EQ
THX_REQ
AREC_0
AREC_1
AREC_2
BREC_0
BREC_1
BREC_2
RECB_INH
INH_AUDIO
SRC_SEL_0
SRC_SEL_1
SRC_SEL_2
BACK_MATRIX0
BACK_MATRIX1
SIDE_MATRIX0
SIDE_MATRIX1
FNT_MATRIX0
FNT_MATRIX1
SWCOL_1
SWCOL_0
STEREO_BACKS

R601 10K — D501 1N4148 — VOL_DATA, INPUT_DATA, INPUT_XRST

U76 — 74HC574A — CF_PHANTOM_BASS

U80 — 74HC574 (CLK, OE)

U357 — 74HC541 — LOGIC_SPEED, MSVID/COMP, NOISE_ON, BK_VCA_KL, AUTOBAL_KILL, CF_WIDE, 4AXIS_EN

4AXIS_EN TO FRONT BOARD

U81 — 24C08 — SDA, SCL, A0, A1, A2, TEST — EEPROM_IN

S81 DIP8S

R858 2.0K

U54E 74HC04 — R865 10K — Q48 2N3904

U54D 74HC04 — MLED_ON

POWER_LED

U64A 74HC04 — R633 10K, R632 1K, R635 10K — Q33 2N3906, Q29 2N3904 — D40 1N4148, R630 10K — FL3 EMI203 — J24 PH1/8 CH FOS — POWER ON

U64B 74HC04 — R853 10K, R852 1K, R854 10K — Q44 2N3906, Q45 2N3904 — D41 1N4148, R851 10K — FL4 EMI203 — J23 PH1/8 CH FOS — MOVIE ON

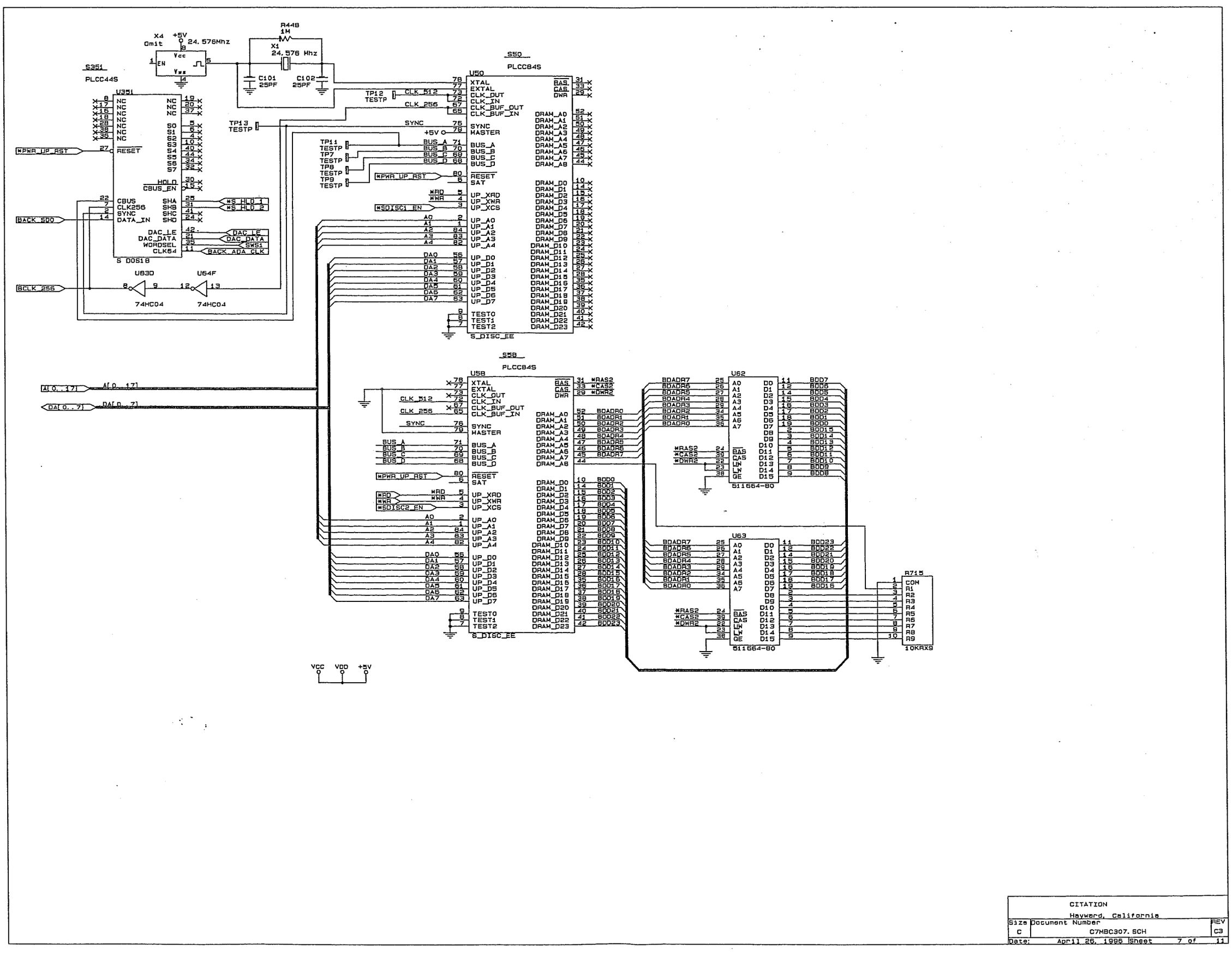
U64C 74HC04 — R856 10K, R857 1K, R855 10K — Q47 2N3906, Q46 2N3904 — D42 1N4148, R858 10K — FL5 EMI203 — J22 PH1/8 CH FOS — DIM ON

+5VPR POWER HC574'S

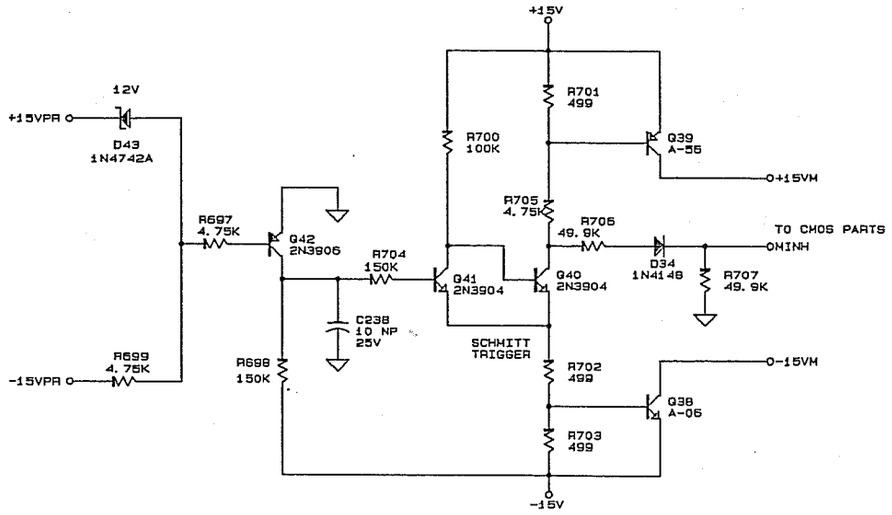
+5V — R23 100 — C1 47U — C124 .10 AM — R517 10 — C223 1U — C130 .10 AM — +5VB POWER HC541'S

VCC VDD +5V

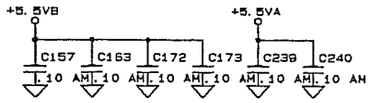
CITATION Hayward, California		
Size C	Document Number C7MBC306.SCH	REV C3
Date: April 25, 1995	Sheet 6 of 11	

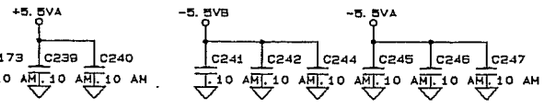


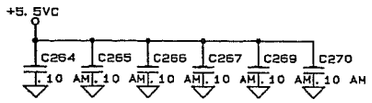
CITATION Hayward, California			
Size C	Document Number C7MBC307.SCH		REV C3
Date: April 26, 1995	Sheet 7 of 11		

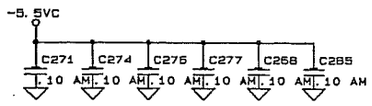


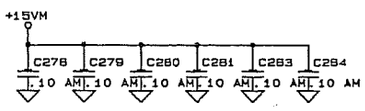
MUTING CIRCUIT

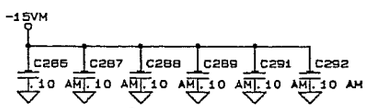


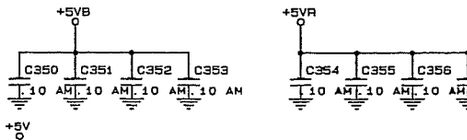


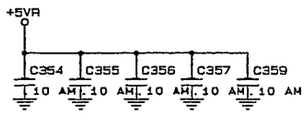


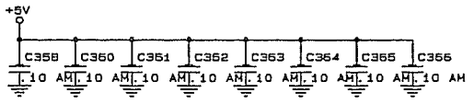


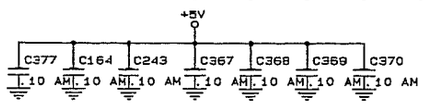


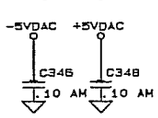


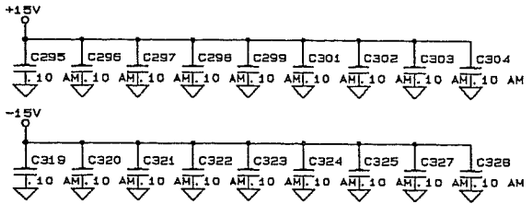


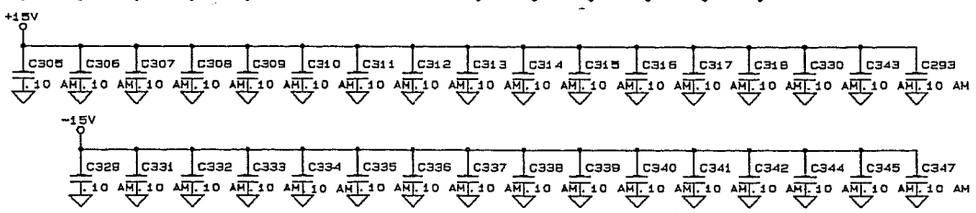


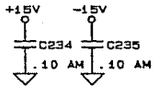


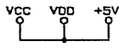




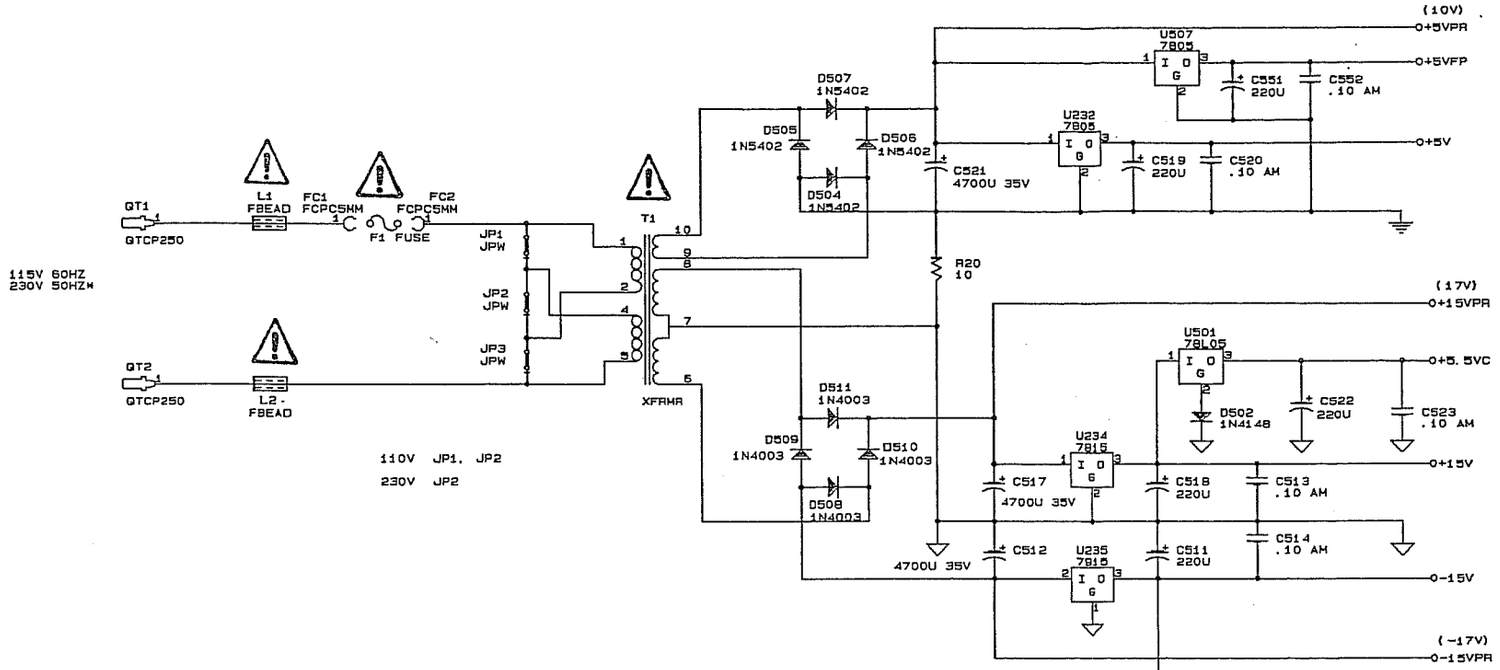




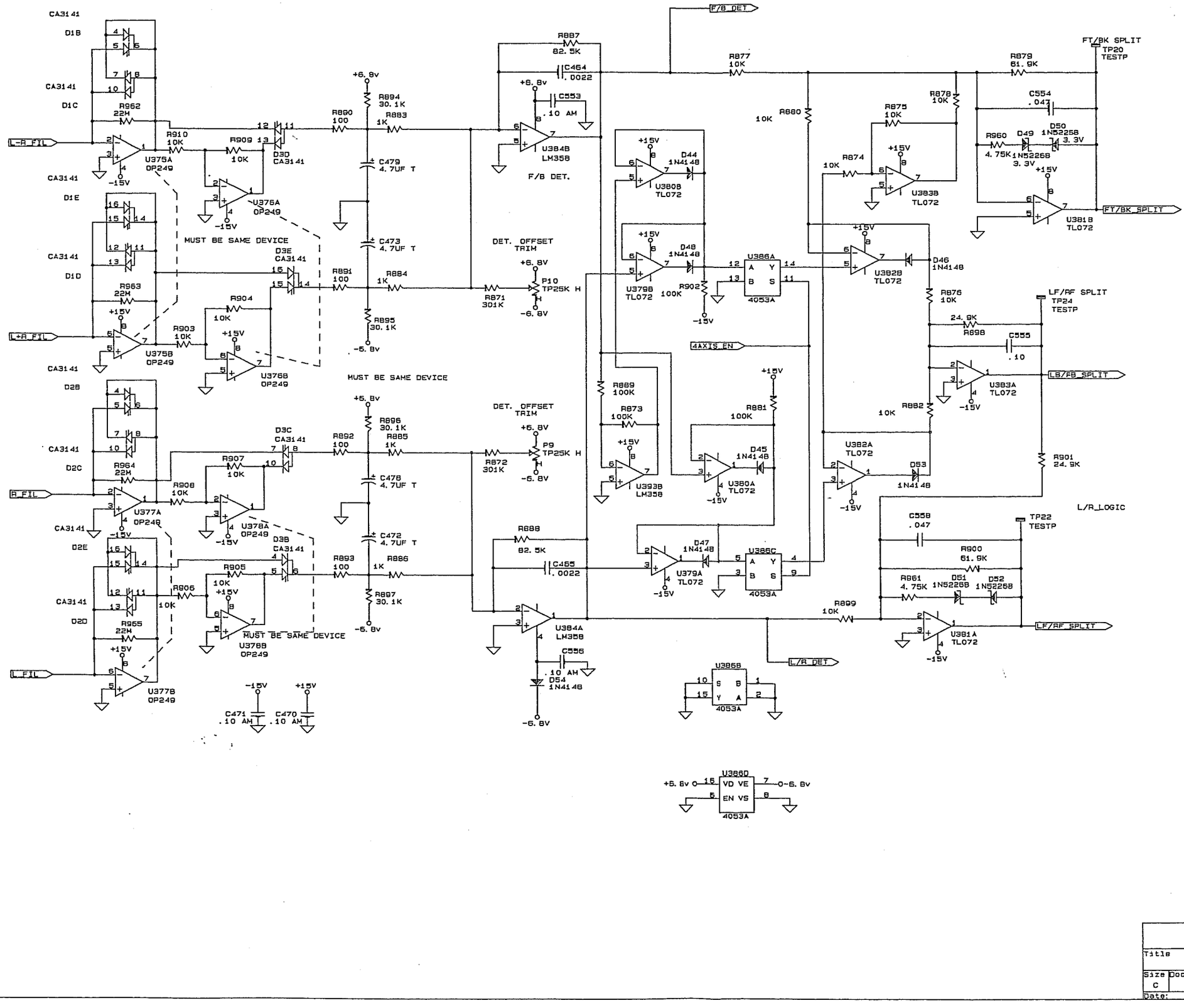




CITATION Hayward, California		
Size C	Document Number C7MBC308.SCH	REV C3
Date: April 26, 1995	Sheet 8 of 11	



CITATION		
Hayward, California		
Title: CITATION 7.0 POWER SUPPLY		
Size: C	Document Number: C7MBC309.SCH	REV: C3
Date: April 26, 1995	Sheet 9 of 11	



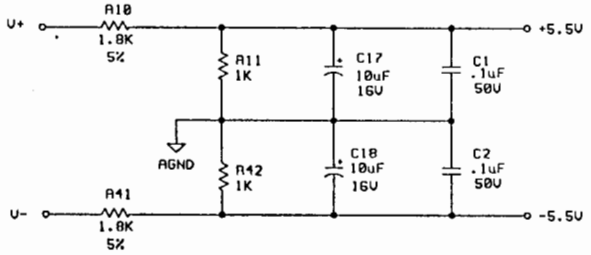
CITATION		
Hayward, California		
Title: CITATION 7.0 CVG DET/SPLITTER		
Size: C	Document Number: C7MBC310.SCH	REV: C3
Date: April 26, 1995	Sheet 10 of 11	

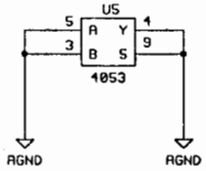
IC CHART

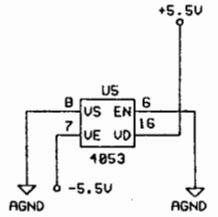
TYPE	VOLTAGE/PIN NO.							REFERENCE DESIGNATOR
	V-	V+	+5V	AGND	DGND	+5.5V	-5.5V	
4053				8		16	7	U5
LM358	4	8						U6, U7, U8, U11, U12
74HC244			20		10			U2
74HC574			20		10			U3
LF353	4	8						U13, U14, U15
LM339	12	3						U9, U10

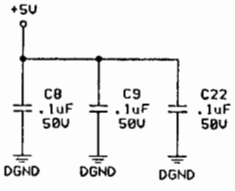
NOTES:

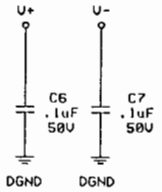
1. FOR CAPACITOR TYPE SEE PARTS LIST.
2. ALL RESISTORS ARE 1/8W, 5% CARBON FILM, UNLESS OTHERWISE SPECIFIED.

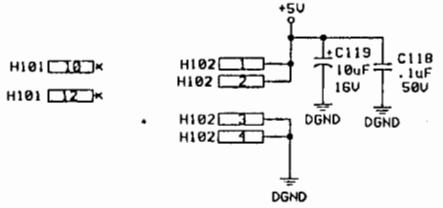


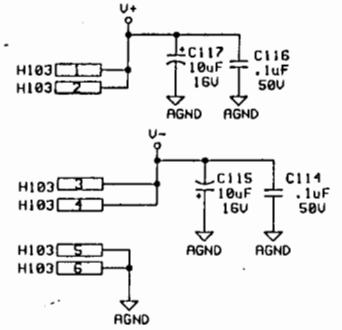


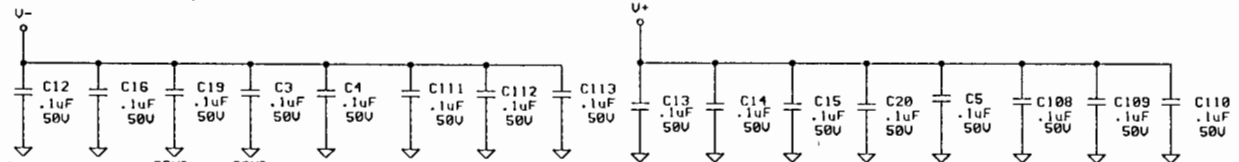












SIGNATURE		DATE
DRAWN	MILLE	11-2-94
DRAFTG CHK		
DESIGN CHK		
C70FPA0.SCH		

AUDIOACCESS
26046 EDEN LANDING ROAD
HAYWARD, CA. 94545

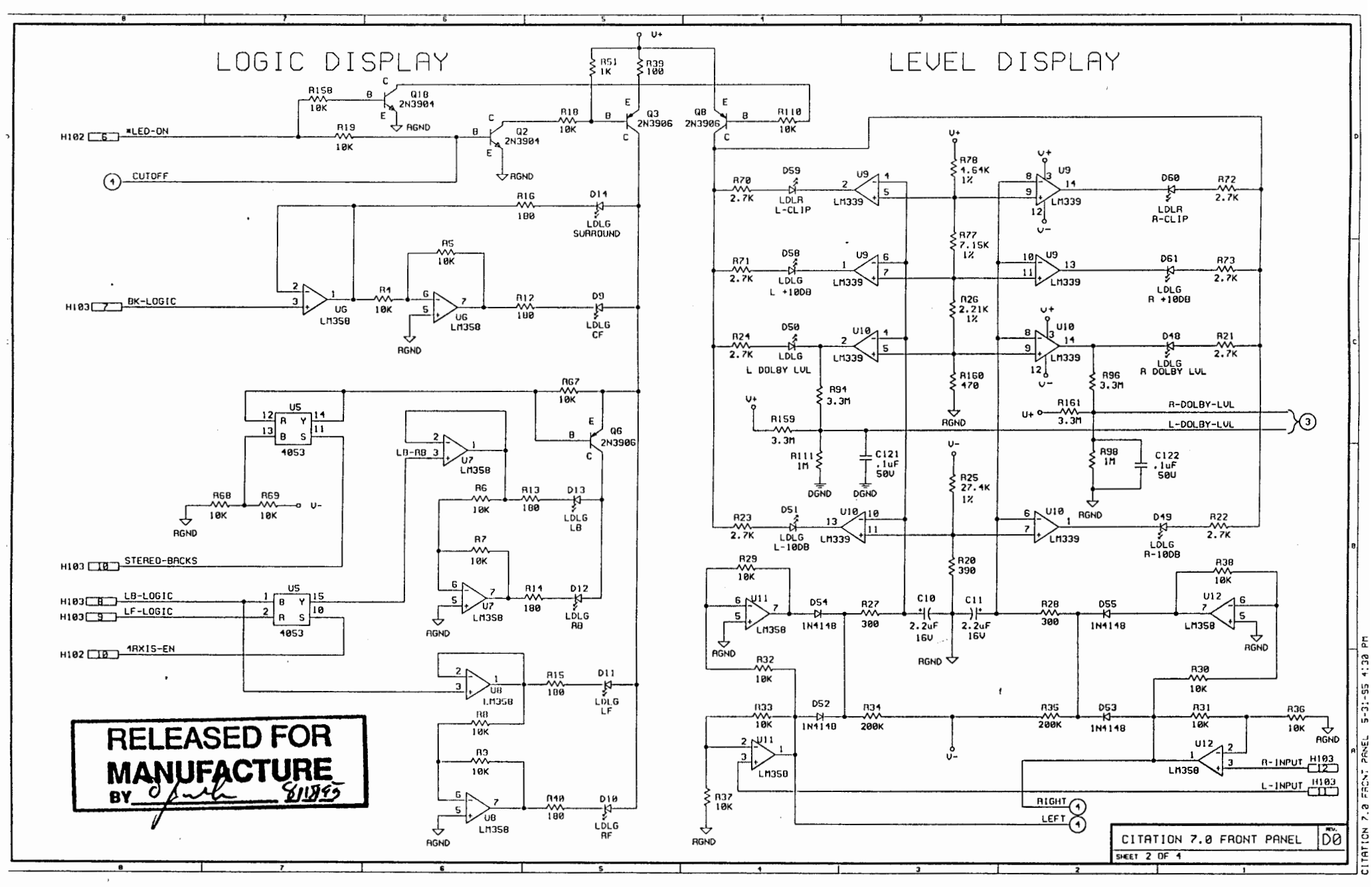
CITATION 7.0
FRONT PANEL

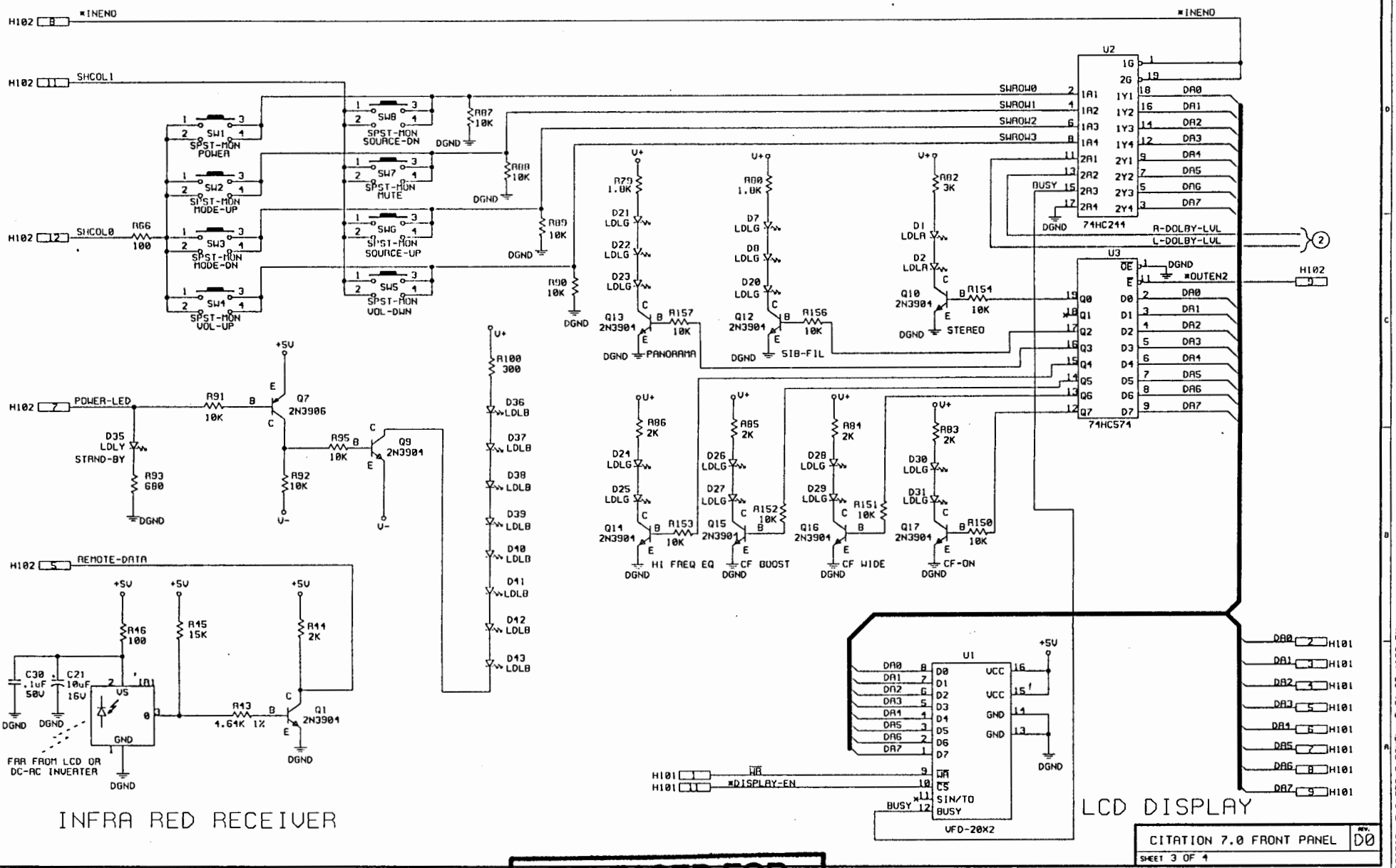
DWG. NO. | REV. D0

SHEET 1 OF 1

RELEASED FOR MANUFACTURE

CITATION 7.0 FRONT PANEL 5-31-95 4:30 PM


LOGIC DISPLAY
LEVEL DISPLAY
H102 6 *LED-ON
1 CUTOFF
H103 7 BK-LOGIC
H103 10 STEREO-BACKS
H103 8 LB-LOGIC
H103 9 LF-LOGIC
H102 10 4RXIS-EN
R158 10K
R19 10K
Q10 2N3904
Q2 2N3904
AGND
RGND
R51 1K
R39 100
R18 10K
Q3 2N3906
Q8 2N3906
R110 10K
R16 100
D14 LDLG SURROUND
R5 10K
R4 10K
R12 100
D9 LDLG CF
UG LM358
R67 10K
R68 10K
R69 10K
U5 4053
R6 10K
R13 100
D13 LDLG LB
R7 10K
R14 100
D12 LDLG RB
Q6 2N3906
LB-RB
U7 LM358
R8 10K
R9 10K
R10 100
D10 LDLG RF
R15 100
D11 LDLG LF
U8 LM358
R78 4.64K 1%
R77 7.15K 1%
R26 2.21K 1%
R160 470
R25 27.4K 1%
R20 390
R94 3.3M
R159 3.3M
R111 1M
C121 .1uF 50V
R161 3.3M
R96 3.3M
R98 1M
C122 .1uF 50V
R70 2.7K
R71 2.7K
R24 2.7K
R23 2.7K
D59 LDLR L-CLIP
D58 LDLG L +10DB
D50 LDLG L DOLBY LVL
D51 LDLG L-10DB
D60 LDLR R-CLIP
D61 LDLG R +10DB
D48 LDLG R DOLBY LVL
D49 LDLG R-10DB
R72 2.7K
R73 2.7K
R21 2.7K
R22 2.7K
U9 LM339
U10 LM339
R-DOLBY-LVL
L-DOLBY-LVL
R29 10K
R32 10K
R33 10K
R37 10K
R27 300
R34 200K
R28 300
R35 200K
R38 10K
R30 10K
R31 10K
R36 10K
C10 2.2uF 16V
C11 2.2uF 16V
D54 1N4148
D52 1N4148
D55 1N4148
D53 1N4148
U11 LM358
U12 LM358
R-INPUT H103 12
L-INPUT H103 11
RIGHT 4
LEFT 4
RELEASED FOR MANUFACTURE
BY 8/18/95
CITATION 7.0 FRONT PANEL
REV. D0
SHEET 2 OF 4
CITATION 7.0 FRONT PANEL 5-31-95 4:30 PM


*INENO
SHCOL1
SHCOL0
SW1 SPST-MON POWER
SW2 SPST-MON MODE-UP
SW3 SPST-MON MODE-DN
SW4 SPST-MON VOL-UP
SW5 SPST-MON VOL-DWN
SW6 SPST-MON SOURCE-DN
SW7 SPST-MON MUTE
SW8 SPST-MON SOURCE-UP
R66 100
R87 10K
R88 10K
R89 10K
R90 10K
SWROW0
SWROW1
SWROW2
SWROW3
U2
74HC244
BUSY
R-DOLBY-LVL
L-DOLBY-LVL
U3
74HC574
*OUTEN2
R79 1.0K
R80 1.0K
R82 3K
D21 LDLG
D22 LDLG
D23 LDLG
D7 LDLG
D8 LDLG
D20 LDLG
D1 LDLA
D2 LDLA
Q13 2N3904
Q12 2N3904
Q10 2N3904
R157 10K
R156 10K
R154 10K
PANORAMA
SIB-FIL
STEREO
POWER-LED
R91 10K
Q7 2N3906
D35 LDLY STAND-BY
R93 680
R92 10K
R95 10K
Q9 2N3904
R100 300
D36 LDLB
D37 LDLB
D38 LDLB
D39 LDLB
D40 LDLB
D41 LDLB
D42 LDLB
D43 LDLB
R86 2K
R85 2K
R84 2K
R83 2K
D24 LDLG
D25 LDLG
D26 LDLG
D27 LDLG
D28 LDLG
D29 LDLG
D30 LDLG
D31 LDLG
Q14 2N3904
Q15 2N3904
Q16 2N3904
Q17 2N3904
R153 10K
R152 10K
R151 10K
R150 10K
HI FREQ EQ
CF BOOST
CF WIDE
CF-ON
REMOTE-DATA
R46 100
R45 15K
R44 2K
C30 .1uF 50V
C21 10uF 16V
VS
GND
R43 4.64K 1%
Q1 2N3904
FAR FROM LCD OR DC-AC INVERTER
INFRA RED RECEIVER
U1
VFD-20X2
*DISPLAY-EN
WR
CS
SIN/TO
LCD DISPLAY
CITATION 7.0 FRONT PANEL
D0
SHEET 3 OF 4
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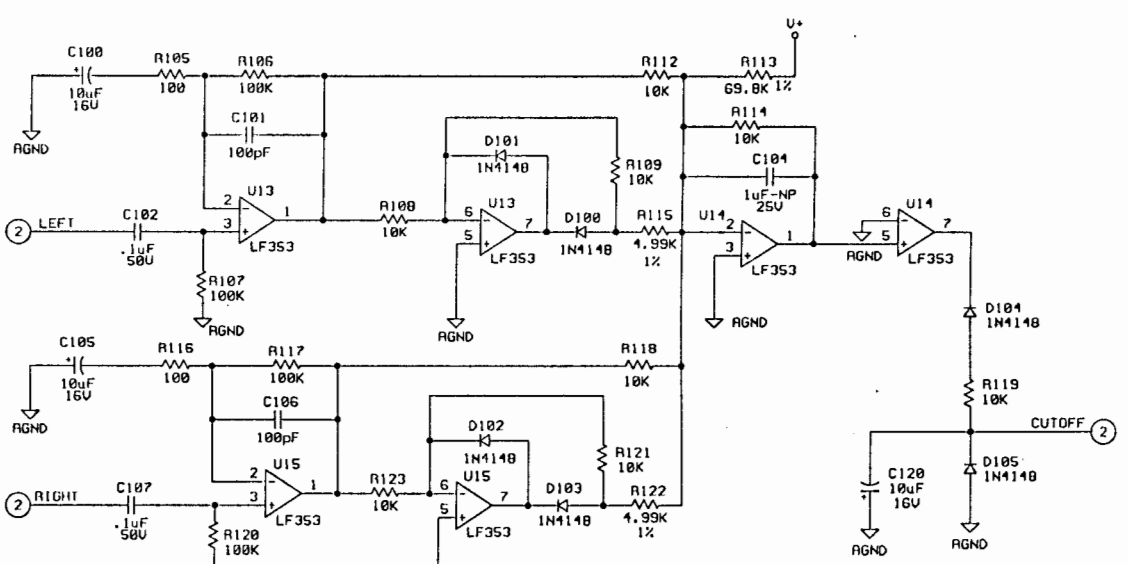
CITATION 7.0 FRONT PANEL 5-31-95 4:38 PM



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CITATION 7.0 FRONT PANEL	REV. D0
SHEET 1 OF 1	

CITATION 7.0 FRONT PANEL 5-31-95 4:39 PM